Address
ON
THE RELATION OF FOOD TO WORK DONE BY THE BODY, AND ITS BEARING UPON MEDICAL PRACTICE.

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BY THE
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(*Concluded from p. 263.*)

Application of Theory to Diseased Conditions of Body.

THE relation of food to work, complicated enough in health, becomes more so in disease, and the problem to be solved by rational theory becomes still more difficult. I cannot attempt even to sketch an outline of this part of my subject considered in general, but shall content myself with asking your attention to three remarkable examples of disease which illustrate the principles I have attempted to lay down.

These diseases are—

A. Typhus fever.
B. Cholera Asiatica.
C. Diabetes mellitus.

A. *Typhus fever.*—In typhus fever a prominent symptom is the remarkable elevation of temperature accompanied by an increased excretion of urea and carbonic acid by the kidneys and lungs, indicating (as no food is taken) an increased morbid metamorphosis of the blood and tissues. The temperature frequently rises to 104° F., representing an increase of upwards of 5° F. above the normal temperature.

If we knew the cause of this increase of temperature, or rather of the increased metamorphosis of which it is the sign, we should know the cause of *typhus* fever, and learn to combat the disease on rational grounds. At present the cause is unknown, and therefore the physician is forced to treat the symptoms as they appear, instead of attacking the cause of the disease. Let us examine for a moment the terrible significance of the symptoms.

Your patient lies for nine or ten days supine, fasting, subdelirious; the picture of weakness and helplessness; and yet this unhappy sufferer actually performs, day by day, an amount of work that might well be envied by the strongest labourer in our land.

The natural temperature of the interior of the body is 100° F., while the temperature of the corresponding parts in typhus fever is at least 105° F. This seems at first sight a small increase—only 5 per cent. of the whole; but it is in reality 2½ times as great as it appears, and actually amounts to 12½ per cent., or *one-eighth* part of the total animal heat. For the total quantity of heat given out by the heated body is proportional (from Newton's law of cooling) to the elevation of its temperature above the temperature of equilibrium, towards which it tends. If we suppose this equilibrium temperature to be 60° F., then the quantities of animal heat given out in typhus fever and in health will be in the proportion of 45 to 40, showing that the animal heat of typhus exceeds that of health by *one-eighth* of its amount.

We have already seen that the work due to animal heat would lift the body through a vertical height of eight miles per day; and it thus appears that an additional amount of work, equivalent to the body lifted through one mile per day, is spent in maintaining its temperature at fever heat.

If you could place your fever patient at the bottom of a mine, twice the depth of the deepest mine in the Duchy of Cornwall, and compel the wretched sufferer to climb its ladders into open air, you would subject him to less torture, from muscular exertion, than that which he undergoes at the hand of nature, as he lies before you, helpless, tossing, and delirious, on his fever couch.

The treatment of this formidable disease in former times consisted of purging, vomiting, and bleeding the patient, with the view of eliminating an imaginary poison, and so helping nature to terminate the disease.

In modern times, thank God, the physician either does not interfere at all, or adopts the rational process of retarding the disintegration of the tissues consumed to supply the fever-heat, by furnishing in their stead fuel, in the form of wine and beef-tea, sufficient to maintain the increase of temperature imperiously required. This practice may be justly considered rational, because the condition of the circulation admits of its application, and it is considered good because it has been rewarded with success in the hands of the skilful clinical physician. In concluding this sketch of the prominent symptom of typhus fever, and as an illustration of the eagerness with which every possible combustible in the body is made use of, I may mention, on the high authority of Dr. Stokes, of Dublin, that the very urea excreted by the kidneys is not permitted to leave the body without first paying its tax to fever, by being burned into carbonate of ammonia, thus rendering the urine of an advanced case of bad typhus fever eminently alkaline.

B. *Asiatic cholera.*—This remarkable disease presents, as everyone knows, three distinct stages—viz., the premonitory stage of diarrhœa; the stage of collapse; the stage of consecutive fever. The stage of collapse exhibits the following symptoms:—Vomiting or purging; muscular cramps; suppression of bile and urine; lowering of body temperature to 95° F.; extreme prostration of strength; extremities pulseless; and face hippocratic.

When death occurs during collapse, the following symptoms are usually found on careful examination of the corpse:—The temperature rises to 103° F.; the muscles give out their characteristic susurrus CCC, and exhibit spontaneous movements; the whole train of symptoms producing the effect of a ghastly attempt at resurrection.*

In this disease we have phenomena respecting animal heat the very reverse of those found in typhus fever; the body performing one vertical mile short of its daily work, instead of one mile in excess. The prostration of strength resulting from this deficient combustion is so great, that death is often caused by bringing the patient to hospital in a cab instead of upon a stretcher, by his walking up a dozen steps into his ward, and sometimes even fatal results have followed a sudden effort to sit up in bed to vomit.

The rise of temperature after death, and the continuance of muscular susurrus and motion, tend to prove that the impeded circulation, which is the prominent symptom in cholera collapse, is due to constriction (probably vaso-motor nervous) of the capillaries; in consequence of which the muscles are deprived of their supply of freshly oxidised blood, the result of which is necessarily contraction and cramp, which produces the excessive agony that characterises this disease.

All authorities on cholera, whether their object be to "impede" or to "assist" nature, are agreed that medicines, whether astringent or purgative, are not only useless, but dangerous in the stage of collapse.

It is useless to give alcoholic fuel to restore the loss of animal heat, for there is no circulation to cause the oxidation of the hydrocarbons.

It is equally useless and more dangerous to give opium to check the remaining purging that exists; for if vomiting have ceased, your acetate of lead and opium pills lie as if in the stomach of a corpse, and at the termination of collapse your patient enters upon the consecutive fever, with perhaps a dozen grains of opium in his stomach, placed there like an explosive shell by your ill-timed zeal, and rapidly passes into a comatose condition, from which he never for a moment rallies. His death is always accredited by the registrar to cholera morbus, and not to opium.

Purgatives and emetics† in cholera collapse effect the same object as opium, but with greater rapidity. In the stage of blue collapse the chances of life and death are almost exactly equal, and the slightest additional loss of force turns the wavering beam on the side of death. The effects of a brisk purgative or emetic (if they act) upon a patient unable to climb a dozen steps, or sit up for a quarter of an hour, without fatal syncope, may be easily imagined, and the use of them cannot be justified by any arguments borrowed from right reason.

A remarkable though transient improvement takes place in collapse by the injection of warm water (brought to the specific gravity of serum by the addition of mineral salts) into the veins or bowels. The patient loses the cramps, feels that he is about to recover, speaks to his friends, and often transacts

* It is startling, on making a post-mortem examination of a cholera patient alone, and by candle light, to witness, on the first free incision of the scalpel, the hand of the corpse rise slowly from its side and placed quietly across its breast.

† When mustard is used, its conservative effects as a stimulant sometimes counteract its destructive effects as an emetic.

whatever business is necessary, but speedily falls back into collapse. The improvement in his condition is altogether due to the temperature of the fluid injected, which supplies for a brief period the deficient animal heat, permits a partial oxidation of the blood, restores the capillary circulation in the muscles, and so destroys their cramp, and, by supplying the deficient work required, removes for the moment the fatal prostration of strength. Anyone who has witnessed the remarkable effects of warm liquids thus injected in cholera collapse must feel that recovery would be certain if the improvement could by any possibility be made permanent.

Our hopes for the future as to the treatment of cholera lie, as I believe, in the direction of supplying to the body, directly, its lost animal heat. I have witnessed the happiest results from an injection of warm salt water into the bowels, assisted by hand friction of the surface with turpentine and chloroform, and the application of bags of hot salt along the spine. In cases treated in this manner we may expect to witness cessation of muscular cramp, restoration of perspiration to the skin, with increase of capillary circulation, and finally, to reward our efforts, a return of the excretions of urine and bile; when these reappear, all vomiting and purging cease, and our patient is almost cured.

After recovery the contrast between the cholera and the fever patient is as great as it was during sickness. The fever patient has been overworked for nine or fifteen days without a suitable supply of food, and when convalescent, experiences a complete exhaustion of strength that lasts for many weeks. The cholera patient, on the other hand, has been prevented from working, by constriction of the capillary vessels, caused by the absorption of the cholera poison,* and feels, on recovery, much like a man that has been half drowned, while the fever patient resembles a man that has been half starved; the one is able to return to his work in the course of a few days, the other only after the lapse of as many weeks.

There are two popular superstitions prevalent among medical men respecting Nature, which yearly slaughter hecatombs of victims—viz., that Nature is simple in her operations and beneficent in her intentions. She is often both simple and beneficent, but at other times she is unquestionably both complex and malevolent.

An Egyptian fable informs us that the votaries of goddess Nature were divided in opinion as to whether she was transcendently beautiful or hideously ugly, and that, in order to keep up this difference of opinion, which suits her purpose, she always wears a thick veil over her face.

> "For, with a veil that wimpled everywhere,
> Her head and face were hid, that mote to none appear;
> That, some do say, was so by skill devised,
> To hide the terror of her uncouth hue
> From mortal eyes that should be sore agrised;
> For that her face did like a lion show,
> That eye of wight could not endure to view;
> But others tell that it so beauteous was,
> And round about such beams of splendour threw,
> That it the sun a thousand times did pass,
> Nor could be seen, but like an image in a glass."

Before trusting Nature in the matter of cholera, and proceeding to help her, it would be well to inquire whether she intends to cure the patient by her evacuations, or to put him into his coffin. For myself I greatly mistrust her, and would wish to ask, previous to assisting her, whether she is really my mother or only my stepmother. Our experience in Dublin has shown that no more effectual mode of shortening life could be devised in cholera than the "eliminant" treatment; and it was accordingly abandoned as soon as tried in that city.

It is much to be regretted that an authority so deservedly held in high repute as that of Sir Thomas Watson, can be now quoted in favour of the treatment of cholera by the maxim, "Similia similibus curantur." So far as Dr. Watson has informed us, his change of opinion rests upon the statement of others, and not upon his own experience. He has suddenly become an advocate of the castor-oil, rhubarb, calomel, and eliminative treatment of cholera, and writes as follows:—

"When I last spoke on this subject in these lectures I stated that the few recoveries which I had witnessed had all taken place under large and repeated doses of calomel, but I could not venture to affirm that the calomel cured them. At present I am much disposed to believe that by its cleansing action the calomel may have helped the recovery; and after all that I have since seen, heard, read, and thought upon the matter, I must confess that in the event of my having again to deal with the disorder, I should feel bound to adopt, in its generality, the evacuant theory and practice."

* Whatever this may be, its period of incubation is forty-nine hours; that of strychnine is twenty-two minutes.

Sir Thomas Watson omits to add that the cases here referred to were only six in number, of whom three died and three recovered, which is exactly what might have been expected if he had not interfered at all.

Cholera from Bengal visits these islands at intervals of about seventeen years, and it is much to be feared that on its next outbreak hundreds of patients will be sacrificed, in obedience to the dogma that asserts it to be our duty to assist Nature.

C. *Diabetes mellitus.*—This disease furnishes us with one of our best proofs that all the chemical changes, by means of which work is produced, take place in the blood and not in the tissues of the body; and, at the same time, an examination of its phenomena explains satisfactorily the regimen and diet which has been found by experience most suitable to the diabetic patient. I shall illustrate the disease by a case which was placed under my control by Dr. Stokes some years ago.

A young man, aged twenty, named Murphy, suffered from fever (enteric?) in November, 1859, and on recovering became diabetic. He was admitted into the Meath Hospital in October, 1860, where he remained under my observation until his death on the 12th January, 1861.

He was allowed for nine weeks to eat as much as he liked of certain kinds of food, which were varied week by week to suit his wants, my object being to obtain, if possible, the natural constants of the disease, undisturbed by external interference; the only medicine used by Dr. Stokes's order being opium, to produce sleep, and a little kreasote occasionally, to promote digestion. As the details of this experiment have been fully published, I shall confine myself to the final results. His food and excretions were analysed from week to week, so as to determine the total quantities of sugar-forming and urea-producing food, as well as the sugar and urea actually excreted.

During six of the nine weeks the sugar excreted was in excess of the sugar ingested, and the means of the daily excretion and ingestion of sugar were—

Sugar excreted	... ...	9773 grs.
Sugar ingested	... ...	9321 ,,
Diff.	... ...	452 ,,

During two of the nine weeks of observation the urea excreted was in excess of the urea ingested, and the mean daily excretion and ingestion of urea were—

Urea excreted	... ...	1182 grs.
Urea ingested	... ...	1349 ,,

The foregoing facts illustrate strikingly one of the prominent symptoms of diabetes—viz., the canine appetite: the quantity both of sugar-producing and urea-forming food consumed is more than double what is necessary to maintain a vigorous labourer in perfect health. An examination of the excretions explains the other prominent symptom of diabetes—viz., the complete prostration of strength in the patient, notwithstanding the great amount of food consumed.

In a state of health, food produces three excretions only—viz., urea, carbonic acid, and water. In diabetes, the farinaceous foods appear in the excretions as sugar, and not as carbonic acid and water; and the work necessary to maintain animal heat must be provided altogether at the expense of flesh food, which is the very form of food least fitted to maintain it.

The diabetic patient resembles a racing steamboat on the Mississippi, whose supply of coals is exhausted, and whose cargo furnishes nothing better than lean pork hams, to throw into the furnace, to maintain the race. It cannot be wondered at that our poor patient, under such disadvantageous conditions, fails to keep in the front.

Let us compare together the minimum of work necessary to keep Owen Murphy alive, with the work actually supplied to him by the food digested.

1. I have already stated that Dr. Ranke found 660 grms. of carbonic acid in the extreme fasting condition, when he weighed 67 kilos. Now since

660 grms. = 10185·35 grs.
67 kilos. = 147·71 lbs.

we find 69 grs. per lb. of body weight as the minimum excretion of carbonic acid consistent with continued life.

This quantity of carbonic acid represents a work generated by its production that would lift its corresponding pound of body weight through a height of

$$69 \times \frac{6}{22} \times 8080 \times \frac{9}{5} \times \frac{772}{7000 \times 5280} = 5{\cdot}716 \text{ miles.}$$

Under ordinary conditions, the greater part of this carbonic

acid and work is produced by the digestion of farinaceous food; but since, as we have seen, the farinaceous food is excreted as sugar in the diabetic patient, and therefore does no work at all, the whole of the foregoing work must be done by the digestion of other kinds of food.

I have already shown that it follows from Lavoisier's experiments (confirmed in a remarkable manner by those of Regnault) that the work done by the combustion of carbon in the body is to the work done by the combustion of hydrogen in the proportion of 9068 to 3024, almost exactly 3 to 1; hence we have the work done by Owen Murphy, as a minimum in health,

Due to carbon	5·716	miles.
Due to hydrogen... ...	1·905	,,
	7·621	,,

This result is somewhat in excess of the truth, for the same reason that the calculated *digestion coefficient* of proteine is in excess of that found by Frankland from experiment; for the combustion coefficients of carbon and hydrogen, in organic compounds, are slightly less than when free. If we are permitted to reduce 7·621 miles in the same proportion as in the digestion of proteine—viz., 48 to 43, we shall find—

Owen Murphy—minimum of work consists of body weight lifted through ... ... 6·83 miles.

Let us now compare this minimum with the work actually performed by him when suffering from diabetes, by the digestion of flesh food and production of urea.

2. I have already shown that the work produced by the formation of 501·28 grs. of urea is 704 ft. tons, by calculation from the composition of proteine and urea. This result should be reduced in the proportion of 48375 to 43155, in order to obtain the work given by Professor Frankland's experiments. Making this reduction, we find that 500 grs. of urea correspond to 626·3 ft. tons of work, or 100 grs. urea to 125·26 ft. tons; or, in other words—

Every four grains of urea excreted correspond to five tons lifted through one foot.

Owen Murphy excreted, on an average, 1182 grs. of urea daily during nine weeks, which, by the foregoing rule, are equal to

$$1475 \text{ ft. tons} = \text{Murphy} \times x;$$

where x represents in miles the height through which the patient could be lifted by the work done per day; and is equal to

$$x = \frac{1475 \times 2240}{93{\cdot}56 \times 5280} = 6{\cdot}69 \text{ miles.}$$

This result is almost exactly equal to that already found as the minimum consistent with continued life, and explains in the most satisfactory manner the complete prostration of the patient, notwithstanding the consumption and digestion of more than double the usual quantity of flesh food.

In corroboration of the foregoing conclusion, I may mention that Murphy's temperature was found to be constantly 2° F. below that of other patients (chronic) placed in the same ward, and, in other respects, under similar conditions.

His unfavourable symptoms (so long as his powers of digestion were not impaired) were invariably alleviated by the free use of flesh food and fat, the latter being instinctively preferred by him; so much so that, during the delirium that preceded his death for twenty-four hours, he raved incessantly about "fat, roasted fat, which the angels of heaven were preparing for him."

I have studied many other cases of diabetes mellitus, and found similar results in all; but I feel it to be unnecessary to describe them, as one well-ascertained train of phenomena, carefully observed and recorded, is quite sufficient to establish the order of nature.

Conclusion.

I have now, Mr. President and gentlemen, to apologise for the length of time during which I have spoken, and to thank you for the patience with which you have listened to me. I am well aware how much I am indebted to your kindness, for I laboured under two serious disadvantages in addressing you: in the first place, I had undertaken a task beyond my strength; and, again, my address is made shortly after you had, like myself, been charmed and instructed by the luminous, learned, and eloquent oration of Professor Rolleston. I feel confident, however, that I possessed one advantage that he did not: I was a stranger in Oxford, and believed that my faults in matter and style would be leniently criticised. In this expectation, I am happy to say, I am not disappointed; and again I thank you for your kindness. Two other advantages I share with him which have contributed to his address as much as to my own—a profound respect and reverence for all honest labourers in search of truth, whether they have preceded us by 20 years or by 2000 years; and an unwavering confidence and faith in the future that lies before the science of Medicine. We traverse a sea, mapped with imperfect charts, carrying with us a sure guide in our compass and stars; but we cannot afford to neglect a single rock or shoal, buoyed for us by the skill and care of those that have preceded us. Let us follow their example, and mark with conscientious care for our successors the dangers we ourselves discover and escape.

Assembled as we are within the walls of the University of Oxford, the centre and heart of all that is intellectual and religious in the life of England—a University that borrows its accurate logic, as well as its refined ethics, from the lips of Aristotle; that reverences Euclid as the fountain and source of its elegant geometry; and sits at the feet of Homer, Pindar, and Eschylus, to learn its poetry,—we need not fear that Hippocrates and Galen will ever want admirers and students; but the Oxford of to-day has taught us, what many did not anticipate, that she is equally ready and skilful, as she has proved herself to be in cultivating literature, to devote her vast intellectual energies to the encouragement and development of the natural sciences, based upon the solid and only permanent foundation of mathematical research. The efforts made within the last few years by Oxford to encourage within her walls the mathematical and natural sciences have won for her the respect, and warmed towards her the hearts, of all that search for truth in the study of nature. Our brothers in Oxford, like the Athenians at Syracuse, have gone on board the fleet, while we watch them from the shore, sympathising in the sea fight: as they win, we shout; when they fail, we weep.

Long may the union of the far distant but never to be forgotten past with the living present, that now exists in Oxford, continue. No science, no profession, can benefit so much by it as that of Medicine.

A BRIEF INQUIRY INTO THE CAUSES, IMMEDIATE AND REMOTE, OF DIFFICULT DENTITION, AND ITS TREATMENT.

BY J. H. JAMES, F.R.C.S., &c.

AMONGST the various conditions which affect the mortality of our species there are few which exceed in importance that of dentition. The lowest statements of its amount are very considerable, and if to these are added those which occur from the febrile diseases of infancy, falling upon those who are undergoing the process, the total is large indeed. Furthermore it ought to be considered that while all other conditions which engage the attention of medical practitioners are only occasional, dentition is the lot of all who have passed the first few months of infancy. These being the facts, it might be suppose, *à priori*, that the subject would have engaged the attention of the profession in an especial manner; but although the works which are intended to deal with infantile diseases show no want of this, yet, as regards the interest it has engaged, it falls very far short of others of much less real importance. The reason is obvious: dentition, like many other things, is too common to be specially regarded. I should not, however, have intruded any observations of my own, but for two reasons. One is, that the treatment by lancing appears to be getting into disrepute, for no sufficient reason as far as I can see; and secondly, that authors, even of the highest authority, differ as to the mode in which it should be practised. A few instances will suffice to prove that it is so. Dr. Copland* and Dr. West† (whose abilities entitle them to every respect) lance the gums in difficult dentition in a very modified degree, their object appearing to be simply the relief afforded by taking blood, and avoiding, rather than seeking, the division of the capsule; while Underwood,‡ Sir J. Clark,§ and Dr. Joy,‖ all insist upon the necessity of relieving the tension as well as taking blood. The question, as far as I can judge, is decidedly in favour of the latter practice, and although I cannot boast of

* Dictionary of Practical Medicine, vol. i., page 505.
† West on Diseases of Infancy and Childhood, p. 623.
‡ Underwood on Diseases of Children, vol. i., p. 213.
§ Sir J. Clark on Diseases of Children, p. 71.
‖ Encyclopædia of Medicine, vol. i., p. 519.

the experience which these authors have had at their command, yet nearly fifty years' observation has enabled me to judge what the results have been in a very considerable number of cases; and although numerically inferior, yet as I had an opportunity of watching most of them during the whole period of dentition, and was much interested in their well-doing, I may perhaps be considered as not speaking on the subject without some warrant.

Why is dentition ever difficult? Perhaps I may be allowed to make a few remarks upon the subject, commencing with normal dentition. The nascent tooth, with its capsule, is extremely vascular and sensitive, if we may judge from the supply of vessels and nerves. When it is completed, the crown becomes coated with enamel, which has neither vessels nor nerves—in point of fact, is not itself living matter, though connected with it, and, like all other matters devoid of life while contained within the body, a disposition to be discharged obtains, until the enameled crown has escaped through the gum, the process being accelerated by the elongation of the roots, to which indeed it has been wholly ascribed; whereas, in point of fact, the softening and absorption of the living tissues to give it exit is precisely similar to what is occasioned by other dead matters; and so little is the disturbance that the tooth sometimes appears without any indication of pain. This is normal dentition.

What are the causes of dentition being otherwise than normal—in other words, what are the causes of difficult dentition? The first is local and general plethora and congestion, often promoted by too full diet, or too much heat about the head. This appears to have been considered as an especial cause; but in many cases it may be doubted whether it is not rather an effect than a cause, for a free lancing will often give effectual relief.

The second is the occurrence during dentition of any of the febrile diseases of childhood, which, falling upon the subject while dentition is going on, induces an inflammatory action and its consequences, to be hereafter stated.

Thirdly, an opposite condition, partaking more of the character of cachexia, where the child is naturally unhealthy from parentage, or is rendered so by bad nursing or feeding, or by unhealthy air. These, probably, are the most frequent causes; and the explanation I would offer is this: that whereas the extremity of the tooth is absolutely dead matter, it follows the ordinary laws of the economy as stated under normal dentition; but whereas foreign bodies in healthy people only produce a moderate degree of irritation, in the unhealthy this proceeds to the extent of active inflammation. So in dentition, the pressure of the extremity of the tooth upon the capsule excites an amount of inflammation, where the condition is unhealthy, which causes thickening and tension both of it and the gum, and reacts on the vascular and sensitive parts of the tooth within as well as of its capsule; and the various formidable symptoms which arise during dentition are the result of the influence produced on the whole system, whether it be called sympathy, or reflex action, or anything else. The local conditions now very much resemble that which is produced in other parts of the body by the tension of unyielding membranous structures upon vascular and sensitive parts contained within them, the ill effects of such tension being but too well known. There are two points which here require elucidation. First, how is it that a cachectic state of the child should be a cause of such serious inflammation? Secondly, what treatment may be deduced from this explanation? Now it will hardly be questioned that, where a person is healthy, the irritation produced by any foreign body will be of a moderate kind as compared with that which is occasioned in those who labour under an unhealthy condition. Thus a splinter or a thorn may produce but little inconvenience in one person, and even fatal inflammation in another. This I propose as a reasonable explanation of the phenomena; and we are not without proofs that it is so, for a child who has had difficult dentition, under the disadvantages of a bad wet-nurse or an unhealthy situation, will, if the wet-nurse or the situation be changed, go through its subsequent dentitions with little comparative difficulty. That this is a fact is pretty generally admitted; and the explanation of the fact is, I would submit, that the same local cause of irritation, acting upon a healthy instead of an unhealthy subject, produces the remarkable difference.*

The principles of treatment may be deduced from this view of the pathology of the case. The imprisoned tooth in difficult dentition is very much in the condition of any other part of the body where vascular and sensitive parts are bound down by unyielding coverings—say paronychia, thecal and fascial inflammations. In these, although the removal of blood from the part is undoubtedly useful, yet it does not supersede the more effectual plan of free incisions, removing the tension. Fair analogy would point out that similar treatment in difficult dentition is the best. It is the treatment supported by Underwood, Clark, and Joy, and which I have myself always found remarkably successful.

Everyone has observed the eagerness with which children during dentition bite upon hard substances. This has been supposed to give relief to the itching or irritation of the gums; but it is certain that it must have another effect—namely, that the edges of the incisors and the sharp points and tubercles of the other teeth, by pressing upon the capsule, effect from within their division, or assist at least to do so; and it is worthy of remark that, in common parlance, the child is said to be *cutting* its teeth. This may be held to be an argument in favour of the operation which facilitates it.

A question very naturally arises as to there being any reasonable grounds for supposing that such complete division can be a cause of injury, and what. It has been said that if the incisions in the gums unite, the cicatrices offer an increased resistance to the passage of the tooth. But this argument is disposed of by the well-known fact that new-formed parts more readily give way than original structure. Has any other objection been offered to the practice of lancing the gums in difficult dentition? I will put out of the question any injury which can be done to the enamel. Those who have suffered from instruments in the hands of a dentist will not attach much importance to what the edge of a gum lancet will do. Is there any damage inflicted on the parts beneath the surface which are not seen? I should say, on the contrary, that the relief of tension on the surface is communicated to the capsule below, and a relief afforded to the inflammatory processes there; and if this be so, the organisation of the tooth is much more likely to be benefited than injured by the proceeding; and although difficult dentition may lead to future decay both of the first and second set (with which the first is so closely connected), I would submit it is from the damage done by the inflammatory processes, and not by the lancet which relieves them.

It will be remembered that I am speaking only of difficult dentition; for to meddle with a tooth which is only progressing in a normal way would be worse than useless, since in such cases a wound of the capsule would have the same ill effect that lancing a phlegmon prematurely has—it would obstruct, instead of advance, the progress of that tooth. But who would confound the pale, flabby surface of the gum in such cases, with the swollen, red, and tense condition of the parts in difficult dentition? I am not aware that any other objection has been or is likely to be urged against deep lancing.

Before quitting the subject, I may be permitted to say a few words on disproportion—a matter which seems hardly to have received sufficient attention. Children inherit the teeth and jaws of their parents, and it may be that these do not coincide. Large teeth may occur in small jaws, the result of which will be crowding of the nascent teeth into too small a space; and although this process cannot be watched before the teeth are out, its effects may be seen subsequently in the crowded and irregular position of the teeth both in the first and second set, and those who have experienced the distress occasioned by crowding in the case of the last molars can easily form a judgment of what crowding must be in a child. Thus parentage may operate in two ways: firstly, by transmitting that ill-health which is frequently a remote cause of difficult dentition; and secondly, by propagating disproportion between the teeth and the jaws. If anyone doubts the probability of such conditions, let him only compare the noble set of teeth and ample jaws of the African savage with those which are too often exhibited by the races deteriorated by civilisation (from which, however, the healthy rural population is comparatively exempt).

It would extend this memoir far beyond the limits I propose if I were to go into any details of those disorders which are allowed to be the frequent result of difficult dentition. But I may remark that they are of two kinds—one, which evidently relieves the morbid condition, and probably prevents more serious consequences, such as insalivation, cutaneous eruptions, and mild diarrhœa; the second, severe affections of the alimentary and formidable derangements of the cerebral and nervous system, or of the respiratory organs. It is in the second class of disorders that I have found efficient lancing of the gums so beneficial.

* This affords a strong proof that an asthenic state disposes to the production of the inflammation, while the same treatment may serve just as in inflammation from a sthenic condition.

Much depends upon the *effective manner* in which this little operation is performed; for, as the old maxim has it, "heavy weights hang upon small wires." If we do not completely secure the head of the child, we may be baffled in our endeavours to carry out our measures effectually. The woman who holds the child (it had better not be the wet-nurse), seated on a low chair, lays it across her lap, so that the head may come between the knees of the operator, seated a little higher, so that it can be held as if in a vice; he will then have the jaws at his complete command, may examine them as to the necessity of interference, and if necessary lance them effectually. The incisors require a single, the remaining teeth, including the cuspidali, crucial incisions. This plan will occasion much less distress to the parent than a struggle to fix the head in any other way.

I have only now to add that I have confined my observations to the subject of lancing the gums in difficult dentition, the other modes of treatment required having been fully and ably stated by the best authorities.

Exeter, August, 1868.

CASE OF GUNSHOT WOUND OF THE LEFT HIP TREATED ON THE ANTISEPTIC PRINCIPLE; RECOVERY.

BY PEARSON R. CRESSWELL, ESQ., M.R.C.S.,
CHIEF SURGEON TO THE DOWLAIS IRON WORKS, MERTHYR TYDFIL.

THE use of carbolic acid in the treatment of wounds and compound fractures has created quite a revolution in the surgical practice at the Dowlais Iron Works (and to give an idea of the extent of that practice, I may say that there are upwards of 8500 persons actually employed in the works); for during the last twelve months I have used it extensively in the treatment of the varied injuries that are of constant occurrence, and, I think I may say, in every instance with marked success. Formerly, in severe cases of compound fracture, amputation was the rule; latterly, it has been the exception.

At some future time I hope to send a summary of the more important cases of compound fracture treated on the antiseptic plan; but now I give the details of a successful and very interesting case of compound and comminuted fracture of the neck and trochanteric portion of the left femur, in which there has been perfect bony union, and that without a trace of suppuration.

On the 13th of April last, at 1 P.M., I was called to see Jonadab T——, aged twenty-three, a boiler-maker by trade, who had just been shot at the rifle-range, where he was engaged performing the duties of a marker. He stated that he had run out of the mantelet, was standing in a slightly stooping position in front of the target, looking for the mark of the last shot, which was somewhere about the bull's-eye, when he felt a sharp smack on his left buttock, and immediately fell to the ground. The patient was placed on a door on his right side, and removed home at once. The ball that struck him was from a regulation cartridge discharged from a long Enfield rifle at a distance of 600 yards.

On examination, I found a small rent in the seat of his trousers, and, corresponding to this, a penetrating wound of the left buttock, immediately behind the great trochanter. The trousers being removed, I perceived, at about half an inch below Poupart's ligament, and a quarter of an inch external to the femoral artery (left), a prominent swelling caused by the ball, which had lodged, and could easily be felt lying underneath the uninjured integument; the femur was fractured, the limb shortened, and in the position of a dislocation on the dorsum ilii. I proceeded to remove the foreign body, and for that purpose placed the patient on his back, with the injured limb supported by a pillow placed under his knee, when I found that the ball had receded from the surface, and could nowhere be felt. However, on placing him again on his right side, I detected it in its old place, and at once made an incision through the skin over the tumour about two inches in length, and parallel with the artery, and easily extracted the ball with the aid of a small scoop. Hæmorrhage, which was rather free at first, soon ceased. On passing my finger into the anterior wound, I found the neck and trochanteric portion of the femur much comminuted, and removed several large pieces of loose bone; but many small fragments, lying deep and difficult to get at, were left. The wounds were closed with lint and strapping, and a long interrupted Liston splint placed on the limb. As the patient was suffering severely from shock, warm brandy-and-water was ordered, which he took reluctantly, saying that he had been a total abstainer all his life. At 8 P.M. I removed the lint and strapping, and mopped out the wounds with carbolic acid, squeezing it well into the interstices. A piece of lint, soaked in a mixture of carbolic acid and boiled linseed oil, in the proportion of one part of acid to four of oil, was then placed over both wounds, and over this a layer of antiseptic putty, and the whole covered in with lead-foil, and secured by a spica bandage. Pulse 100; skin warm; temperature of injured limb natural. To have one grain of opium powder immediately.

April 14th.—12 A.M.: Has passed a good night; no pain in the limb; no hæmorrhage; bandage stained with bloody serum; skin cool; tongue moist; pulse 100; has passed no urine; catheter introduced, and about a pint of urine drawn off. Antiseptic putty reapplied, great care being taken not to disturb the piece of lint first placed over the wound.—11 P.M.: Has no pain, but feels restless; has passed no urine since the introduction of the catheter this morning; pulse 108. Urine drawn off. To take twenty minims of tincture of opium immediately.

15th.—12 A.M.: Slept well last night; countenance placid; skin cool; tongue moist and clean; pulse 100; retention of urine still continues. Introduce catheter. Renew antiseptic putty. Sero-sanguinolent discharge very trifling.—11.45 P.M.: Expression of countenance rather anxious; skin hot; marked abdominal tenderness; pulse 100. Introduce catheter. To take twenty minims of tincture of opium immediately.

16th.—1 P.M.: Feels pretty well this morning; slept well after the draught; no pain in the limb, and but slight tenderness over the abdomen; pulse 96. Urine drawn off. Renew the putty dressing. No discharge of any kind whatever.—11.45 P.M.: Feels comfortable. Urine drawn off. Wishes for his draught. Opium as before.

17th.—1 P.M.: Feels quite well, with the exception of being unable to pass his urine. Renew putty dressing. No discharge.—11.45 P.M.: Introduce catheter, and repeat opium.

18th.—Has passed, as usual, a good night, and feels well this morning. His appetite, which has been hitherto very good, has failed him to-day. Bowels have not been moved since the accident. Introduce catheter; renew putty. An ounce of castor oil to be taken to-morrow morning.—11 P.M.: Introduce catheter, and repeat opium.

19th.—11 A.M.: He took the castor oil early this morning; it has not operated yet, and it has made him feel very squeamish. Urine drawn off. Renew the putty dressing. No discharge. The dose of castor oil to be repeated.—10.15 P.M.: Bowels have acted freely, and he has passed urine. Feels comfortable, and thinks he will be able to sleep without the draught.

20th.—Has passed a good night; appetite good; thirst moderate; skin cool; passes urine well; in fact, his general health is as good as ever; no pain in the limb; not a sign of discharge. Reapply the antiseptic paste.

May 3rd.—Antiseptic putty has been daily renewed. Health very good; no pain in the limb; no discharge; he wants to get up.

6th.—Feels quite well; no pain in the limb; antiseptic putty has not been changed since last report; not a stain on the bandages.

29th.—Removed splint and dressings, together with the original antiseptic rag, when I found over the sites of the wounds two perfectly smooth cicatrices. The limb on being measured was an inch and a quarter shorter than its fellow. Placed the limb in a gum-and-chalk bandage, and fixed a piece of Hides' patent leather-felt splint around the pelvis and hip. To get up to-morrow.

July 3rd.—Since last report has been up and walking about with the aid of crutches, frequently showing himself at the surgery. To-day I removed the bandage. Bony union perfect. A great deal of thickening about the hip. Limb an inch and a quarter shorter than the other. Foot everted. Stiffness about the hip-joint.

24th.—Presented himself at the surgery previous to going to the country. He still walks with a crutch, but can bear the weight of his body on the injured limb for a short time; but when continued he feels a slight aching pain in the groin. Free movement at the hip-joint.

Dowlais Surgery, July 25th, 1868.

ON THE

USE OF BROMINE IN THE TREATMENT OF HOSPITAL GANGRENE.

BY JOHN WM. BLIGH, M.D.,
LATE ACTING ASSISTANT-SURGEON U.S. ARMY.

DURING the late civil war in America, hospital gangrene, especially during the summer months, prevailed to an alarming extent. The deaths from this cause alone were, in some sections of the U.S. army, truly appalling, until the use of bromine as a treatment was introduced by Surgeon Middleton Goldsmith, U.S. volunteers, in charge of the Jefferson Hospital, Jeffersonville, Indiana. After this time no deaths attributable solely to this cause occurred, when properly treated by it. During the months of June, July, and August, 1864, when in charge of wards in the above-named hospital, upwards of 100 cases came under my care, all of which terminated favourably, as well as hundreds of others, treated in a similar manner by the other surgeons, in other wards. In the hospitals situated on the opposite or Kentucky side of the Ohio river, the mortality amongst the wounded from hospital gangrene was enormous until Dr. Goldsmith's treatment was adopted, and, under his directions, carried out; upon which it ceased. I found the same success attend its use when in charge of the gangrene wards of the 15th Corps Field Hospital, army of the Tennessee. Towards the close of the war it was coming very generally into practice, success having followed its application in almost every instance. The mode of applying the bromine is substantially as follows:—

1. The wound must be *thoroughly* cleansed of all gangrenous slough by means of a wooden spatula or blunt scalpel, until the firm, healthy tissues beneath are reached; and the parts dried as perfectly as possible with tow. To do this effectually, the patient is first placed under the influence of some anæsthetic, a mixture of equal parts of chloroform and ether being generally preferred. The ether is used to counteract, by its stimulating properties, the depressing effects of the chloroform; whilst the rapidity of action of the latter is maintained. Without first *thoroughly* clearing away the diffluent slough, bromine, powerful as it is, is unable to penetrate to the healthy tissues. To want of this very necessary precaution I believe all the failures attributed to it are to be ascribed.

2. Having thus prepared the wound, pure bromine is applied by means of swabs of lint attached to the end of small sticks, say eight or ten inches in length; great care being taken to touch every portion of gangrenous surface. The bromine, being extremely volatile, penetrates every sinus &c., which could not be reached by any of the other liquid or solid escharotics in use. The bed or operating table upon which this application is performed must be placed in such a position that the fumes, which are extremely irritating and annoying, will be carried off by a draught of air in a contrary direction from that in which the operator and his assistants are.

3. After the application, the wound should be stuffed with lint damped in a *solution* of bromine made with water and bromide of potassium, and then wrapped up in oiled silk. After the lapse of a few hours linseed poultices are applied, to facilitate the removal of the eschar, which soon peels off as the skin from a boiled potato, leaving healthy rose-coloured granulations below. The wound is then treated in the ordinary way, special care, however, being taken to keep the parts clean, and, by means of dressings saturated in some weak disinfecting solution, to prevent the absorption of fresh virus.

4. During the progress of the disease the patient must be supported by the free use of whisky, by quinine, &c.; but beyond the use of stimulants and tonics, and endeavouring to keep the secretions and excretions in as healthy a state as possible, very little internal treatment is required, as the constitutional symptoms are merely secondary, and cease immediately on the successful combating of the local trouble. In a few hours, after a thorough application, they usually vanish, as it were, by magic; and, instead of the patient being the disheartened, despairing being he was previously, he will be a hopeful man, sanguine of recovery.

When on duty in the 15th Corps Field Hospital, I was obliged on one or two occasions to resort to the use of nitric acid when bromine was not to be obtained; but found it wanting in the very penetrating and escharotic effects of the latter—two properties which render bromine so specially adapted. Although applied in a similar manner, the results were not nearly so satisfactory, very frequent applications being required, and the patient remaining under treatment for a much longer period.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

AUTOPSY OF A CASE IN WHICH THE SKULL WAS PENETRATED BY A CLEAVER.

(By Dr. MOXON.)

IN the department of morbid anatomy last week we saw Dr. Moxon conduct the examination which is here described. The case was interesting in several particulars, not the least being that the injury bore a striking resemblance to one not unfrequently requiring attention in warfare—namely, sabre wound of the skull.

The patient, Charles D——, aged sixty, was admitted into Guy's Hospital, under the care of Mr. Cock. He had been struck with a cleaver in the forehead in an Irish "row" on the 8th of August. Insensibility came on gradually on the 11th, without any great restlessness. After this his right limbs were noticed to be paralysed, or at least not to be moved, whilst he moved the left limbs. Coma was complete on and after the 12th; and he died on the 14th at 7 A.M.

The post-mortem examination was made seven hours after death. The tissue of the scalp and pericranium around the wound was healthy. The injury to the bone was a vertical cleft in the frontal above the left orbit. The cleaver had struck obliquely backwards and to the left nearly through the thickness of the bone, making on the outside a straight cut, from the upper and lower ends of which fissures ran, an upper one curving outwards for half an inch, and a lower and larger passing behind the outer angle of the orbit into the middle fossa of the base of the skull, crossing but not tearing the middle meningeal artery in the deepest part of the cleft. The inner table had given way before the edge of the weapon, and from it two scab-like pieces, one above the other, had been driven in so forcibly as to lacerate the dura mater. These fragments were about the size of threepenny-pieces, and had sharp angles on their outer or left edges, but their right or inner edge was straight, and coincided with the line of the cleft, so that these fragments were driven from the outer edge only of the cleft, or that towards which the weapon, in its oblique course, was advancing. They projected into the cranium about one-eighth of an inch. The hole they had made in the dura mater was ragged, and coincided in size and position to the upper and larger of them. The brain at the same spot had a red mark, but no evident wound. There was no sign of injury to the parts on the diagonally opposite point of the cranium—i.e., no *contre-coup*. There was a considerable quantity of turbid liquid in the *arachnoid* cavity on the injured side, but not on the right side; the pressure of this liquid had emptied the *subarachnoid* space on the injured side, so that when the liquid had run off, the convolutions of the brain stood out sharply in relief from the absence of the usual subarachnoid liquid, while on the opposite side the liquid in the *subarachnoid* space raised as usual the arachnoid so as to hide the sharpness of the convolutions. This gave a curious appearance of difference to the two sides of the brain; and there was this further difference, that on the injured side a considerable number of patches of pus were beneath the arachnoid, and two or three small ones on its surface; while on the other side there was, as to the upper half of the brain, no pus to be seen, but only a patch or two of pale lymph near the

Pacchionian glands. But, on viewing the base of the brain, the state of the two sides was more alike, both showing a good deal of lymph under the arachnoid. It thus appeared that the injury had set up directly, on the injured side, superficial arachnitis, with effusion into the arachnoid cavity, and also a pia-matritis, with formation of pus in the subarachnoid; and that the former had been limited to the injured side, while the latter had crossed over on the continuous and more open subarachnoid space at the base of the skull to the opposite side, causing only a subarachnoid inflammation on that side. The tissue of the brain was remarkably firm, the firmness of the fornix and other parts about the ventricles being equally striking. The ventricles contained rather less than the usual quantity of liquid. This was turbid; and at the end of the *right* posterior cornu was a small collection of pus on the wall, yet the wall at that spot was not visibly changed. There was an entire absence of the soft commissure. No sign of it existed. This firmness of the tissue put the idea of its having been accidentally broken down in removal &c. quite out of the question. The left pleura was universally adherent, except that at the apex of the lung there was a lax cyst of the size of an apple. This proved to be a little hydrothorax, with perfectly quiescent parietes, limited securely on all sides by the adhesion of the rest of the pleura. Some old relics of tubercle were on the pulmonary pleura, at the point in the wall of this little hydrothorax. The lungs were in a state of atrophic emphysema to a marked extent, and the left kidney was almost completely atrophied through passive distension of its pelvis, an enlargement of the right kidney to 8½ oz. compensating for the loss of the left. There were no signs of secondary disease of the viscera, and, with the above exceptions of out-of-date and unimportant accidents, they were healthy.

The chief points of interest pointed out by Dr. Moxon were: First, the depression of the inner table, or rather of a scale from the inner face of the bone, when no sign whatever of such a mishap was to be seen from the surface. Secondly, the absence of any *contre-coup*. This was, however, to have been anticipated, he said, from the nature of the injury, because the blow was dealt with a light thing moving quickly, so that the time spent in the infliction of the injury to the bone was too short to allow any great share of the force of the blow to pass off in vibrations away round the skull to the opposite point; and hence all the force of the blow was spent at the point of contact, producing penetration, until the pace of the weapon had been slackened by resistance; but when its pace was so slackened, there was time for the remaining force to distribute itself to the neighbourhood, and it did so; but as the weapon was now near the inner surface, so that a small thickness only remained, this small thickness was not able either to conduct away the vibrations or to endure them, so it gave way and was driven in in fragments, the predominating tendency onwards of the force which detached these fragments causing them to move in the onward course which the weapon would have taken. It is when a blow is given by a large mass moving more slowly that *contre-coup* is found. Stated generally, this is the rule: If, in a blow on the head, the violence (*momentum*) of the blow be due to the weight of the mass which strikes more than to its velocity, then the vibrations are diffused and *contre-coup* is found; but if the *momentum* of the blow is due more to velocity than to mass, then the vibrations are not diffused, and there is no *contre-coup*. It is this limitation of the effects of sudden sharp blows on the head that allows of the recovery from fractures of the skull that have arisen from such blows. A third point of interest is in the unilateral arachnoid, with a bilateral subarachnoid inflammation. The explanation of this has been given above. It is no doubt due to the circumstance that the arachnoid surfaces fit close, so that the products of inflammation do not easily flow along between them, lighting up as they go; while the subarachnoid space is open, and the inflammatory products can hence pass down across the spaces at the base of the brain to the other side. The occurrence of paralysis on the side opposite to the injury might seem not to be explained by the arachnitis of the opposite side, as such surface inflammations do not cause paralysis at all constantly. But the evidence of *pressure* given in the empty subarachnoid space, and the prominent convolutions, offer us a proof that pressure, the great cause of paralysis, really existed, and there was not only irritation and structural change, as is often the case. Still it is a long way for pressure to reach the corpora striata from the surface; and, as the man was comatose when his paralysis was observed, it is reasonable and proper to reflect that such a paralytic state may not infer the existence of a direct incapacitation of the *motor* centres of the right limbs, but may rather be due only to cessation of some of the more properly mental functions that we suppose to be seated in the "hemispherical ganglia." Evidently we move each leg from the opposite brain; and though we are not conscious of having a mind or will for each side, yet the practically symmetrical masses of nerve-matter that grow above the locomotive machineries of the two sides plainly point out such a double arrangement, even though we are not conscious of it, any more than we are of the separate views of our two eyes. And it appears to Mr. Moxon to be quite open to us to believe that in such a state of apparent paralysis of the right leg and arm during coma the real state is a *paralysis of the left will*, from pressure on the grey matter of the left surface, the right will being in a state of less perfect abeyance. This is not quite so wild as it may look at first. Our experience of "functional" paralysis plainly shows that there is a good deal between the oneness of consciousness and the two machineries of the respective opposite sides seated in the corpora striata and thereabouts.

ST. THOMAS'S HOSPITAL.

EXTENSIVE SCALP WOUND; INTRA-CRANIAL ABSCESS; TREPHINING; DEATH FROM PYÆMIA.

(Under the care of Mr. SYDNEY JONES.)

THE following case (reported by Mr. John A. Bell) a good deal resembles one which we published in the "Mirror" of Jan. 27th, 1866, where the patient, a woman of thirty-six, had got kicked upon the head in a row, and received a scalp wound, which was followed by intra-cranial abscess. Mr. Hulke trephined, and gave exit to three or four drachms of pus. The patient died.

Susan R——, aged thirty-nine, married, was admitted on the 17th of November, 1867. She had fallen and struck her head violently against a bedstead. On admission, there was an extensive wound separating the scalp from the whole of the forehead. The flap was contused, but there did not seem to have been any symptom of concussion. The skull and periosteum were reported not to have been injured. Hæmorrhage from a small artery was readily controlled, and the scalp flap was adjusted by strips of soap plaster. She was ordered to bed and an aperient was administered. Soup diet.

Nov. 28th.—Up to this date the patient seems to have progressed favourably, and the wound has healed in the greater part of its extent. Since the 23rd she has been on mixed diet. To-day, however, she complains of some headache.

29th.—Shivering; the headache continuing.

Dec. 4th.—There has been shivering every day since, worst on the 3rd. The headache is very violent in front; she is frequently wandering. The sight seems unaffected, and there is no difference in the pupils, which act normally under the influence of light. The bowels have been freely opened by magnesia mixture with sulphate of magnesia, ordered three times a day. There is puffiness below the line of wound, now nearly healed. An incision was made into this puffiness, and some pus evacuated. A large area of bare white bone was thus exposed, but no fracture could be detected. The urine was acid, containing an excess of urea, and albumen in small quantity. Ice-bag to head.—7 P.M.: Pulse 107; temperature 103·4°.

5th.—10 A.M.: Pulse 104; temperature 102·7°. Rarely answers rationally. Wound of forehead not discharging freely. Fæces and urine passed involuntarily to-day.

6th.—Quite unconscious, not answering when spoken to, but evincing sensibility to pain when examined. Pupils rather contracted, but equal, and acting pretty freely. Tongue dry and rather furred. Pulse 108, feeble; respiration 27; temperature 104·6°.

At 2 P.M. Mr. Sydney Jones trephined through the white bare bone. On its removal, a small quantity of pus was found between the dura mater and bone. The dura mater was discoloured, soft, and sloughy-looking, and presented a small ulcerated aperture, from which there escaped a large quantity of clear, rather brownish fluid, containing small flakes of pus. The opening in the dura mater having been enlarged, there came pumping up, as she coughed, a quantity of thick material, looking like concrete pus. This was examined microscopically by Mr. Wagstaffe, and found to contain much softened-down brain-substance.

Ten minutes after the operation: Pulse 102, more feeble; respirations 29; temperature 102·3°. She appears rather more sensible, holding up her hand when told. Cannot speak, apparently. No spasm.—Half an hour after the operation: She articulated the word "pain." Serum, mixed with flakes

and lumps, continues to exude. Pulse varying from 106 to 112; respirations from 26 to 31; temperature from 100·9° to 102·7°.

7th.—Shortly after midnight the patient was attacked with dyspnœa, cough, and rattling breathing; violent tremors, with occasional starts. During this paroxysm the pulse was not countable, the respirations were 36, and the temperature was 104·4°. The tremor subsided about 1 A.M., and she remained quiet until after 2 A.M., when she had a similar attack, rather less violent, and lasting a quarter of an hour. At 2.30 the respirations were reported 32, and the temperature 105·25°.—11 A.M.: Raises her hand when told; speaks a few words indistinctly; has frequent tremors.—11 P.M.: Pulse jerking, hardly countable; respirations very laboured. To have eggs and eight ounces of wine.

8th.—2.30 A.M.: Convulsive sighing; general tremor; much worse; muttering delirium.—7 P.M.: Face flushed; pupils dilated; insensible.

She continued in this state until 2.30 A.M. on the 9th of December, when she died.

The post-mortem examination was conducted by Dr. Lees, and only the facts bearing on the case are here recorded. The trephine opening was on the left of the median line, about two inches above the orbit, and had a diameter of three-quarters of an inch. The dura mater was adherent to the margin of the bone opening. In the cavity of the arachnoid, a thin layer of purulent lymph coated the upper and under surfaces of the left anterior lobe. In the front of the left hemisphere there was an opening capable of admitting the forefinger, leading backwards and outwards to an abscess-cavity, two inches and a half in length, and rather less than an inch in transverse measurement. This cavity contained pus, a coagulum, and broken-down brain-substance; its walls were uneven, and the brain surrounding it was softened, and showed numerous points of blood-extravasation. In the lower lobe of the left lung were two pyæmic abscesses: a larger one about the size of a walnut, near to the posterior margin of the lung, containing grumous-looking pus; and a smaller one, nearer to the upper part of the lower lobe. Both lungs were elsewhere much congested. The kidneys were congested, but otherwise nothing abnormal was detected. No pyæmic deposits elsewhere.

Provincial Hospital Reports.

DORSET COUNTY HOSPITAL.

TWO CASES OF LITHOTOMY.

(Under the care of Mr. TUDOR.)

THE following cases possess some interest: one, on account of the size and difficulty in extraction of the stone; the other, from its situation in, and attachment to, the bladder.

CASE 1.—G. S——, aged fourteen, was admitted July 15th, 1867. The history of this case extended over a period of seven years. It was, however, sent to the hospital as "chronic urethritis." Until a short time previous to his admission, the boy had been occupied in the stone quarries of Purbeck. His general aspect was that of anæmia, with a peculiar expression of the face, indicative of prolonged suffering. He was otherwise in a sad plight, his linen being saturated with offensive-smelling urine, stained with blood, and the penis swollen, inflamed, and excoriated. Stone was at once suspected, and, on examining the bladder, a calculus was detected, supposed to be in size equal to a large walnut. An operation was proposed; but the mother objecting, the patient was discharged. Greatly increased suffering ensued. The boy was consequently brought back again, and readmitted at the end of ten days. The symptoms were now very severe, and the boy's life for some time seemed in jeopardy. The irritation of the bladder was most distressing, accompanied with a continuous dribbling away of the urine, mixed with blood and mucus. In addition, there was considerable mischief going on in the rectum—frequent paroxysms of tenesmus and prolapse of the bowel, with dejections of muco-purulent matter and blood. There was at the same time loss of appetite, and little or no sleep. Soothing applications were applied externally over the region of the bladder and perineum, and opiates were freely given by the mouth and rectum. The diet was milk, beef-tea, and farinaceous food.

August 23rd.—The patient's general condition being now more satisfactory, the usual lateral operation was performed, under the administration of chloroform. There was some difficulty in the commencement of the operation, owing to the urgent and forcible protrusion of the rectum. When the bladder was opened, it became apparent that the stone was larger than had been expected, and the attempt to extract it at first failed, in consequence of the forceps slipping, although repeated attempts were made, and with different-sized instruments. The scoop was tried, with a like result. The wound in the neck of the bladder was then very carefully enlarged, partly by incision on the right side, but chiefly by dilatation with the finger. The scoop and the forceps together were then employed. The former, carefully guided by the finger, was passed well behind the stone, which was held firmly in position against the neck of the bladder whilst Mr. Tudor again introduced the forceps. By these combined means the extraction was soon effected. The use of both these instruments required much caution, as the bladder was contracted firmly around the stone, which turned out to be a large-sized "mulberry" calculus, measuring *six inches by five* in circumference, and weighing *three ounces*. In comparing, in this case, the dimensions

of the stone (the outline of which is well shown in the accompanying woodcut) with the limited space at the neck of the bladder, in so young a subject, it seems surprising that so large a body could be removed without inflicting irremediable injury; but it is evident that, with due precaution, the parts are susceptible of a considerable amount of stretching, and admit of the employment of what might appear to be rough usage, provided the knife is used sparingly and with judgment, and the scoop and forceps handled carefully. The use of the scoop was very important in this case, because of the firm contraction of the bladder around the stone. There was very little hæmorrhage; and although the patient was a considerable time under chloroform, he had no bad symptom following the operation. The wound healed favourably in about the usual time, and the boy made a satisfactory recovery.

CASE 2.—J. T——, four years of age, a diminutive, sickly-looking child, admitted June 20th, 1867, with symptoms of stone in the bladder. A few days subsequent to his admission Mr. Tudor passed a small sound, but after a most careful examination failed to detect any calculus. The symptoms still continued, but, the general health being very unfavourable, a second examination was deferred for several weeks. On this occasion Mr. Tudor was clearly satisfied as to the presence of a stone, which, however, required the use of an ordinary catheter, or a sound with a large curve, to be reached with facility. It was also observed that there was a muffled sound given off when the stone was struck, and that the peculiar grating sensation commonly imparted through the instrument was absent. Unforeseen circumstances prevented an operation until December, and during the interval the child's health had greatly improved, and there was remarkably little irritation in the bladder. On Dec. 10th, the child being placed under the influence of chloroform, Mr. Tudor performed the lateral operation, and proceeded to remove the stone in the usual way, but without success, in consequence of its situation in the bladder, apparently resting on and attached to the anterior surface of the fundus behind the pubes, where it could be felt by the finger. Mr. Tudor withdrew the forceps and employed the scoop, first passing the finger above and behind the stone, and then carefully guiding the instrument upon the finger to the front, making a sort of forceps; by this means the extrac-

tion was easily effected. The stone (phosphate of ammonia) is in shape and size like a large cobnut, measuring in circumference about two inches and a half; and on its surface there are three small nodular excrescences, from which springs a thin membranous tissue encysting the stone. Mr. Tudor remarks that he cannot explain the development of this; but its existence seems enough to account both for the difficulty in detecting the stone except by the use of a large curved instrument, and also for the failure with the forceps. It also may explain the subsidence of the severity of the local symptoms which occurred for some time before the operation. The child made a rapid recovery.

Reviews and Notices of Books.

Clinical Lectures and Reports by the Medical and Surgical Staff of the London Hospital. Vol. IV., 1867-8. Edited by Dr. CLARK, Dr. DOWN, Mr. HUTCHINSON, and Mr. MAUNDER. London: John Churchill and Sons.

BOOKS of all kinds accumulate so rapidly upon our library table that when our reviewing branch once gets into arrear—which, by the way, it is peculiarly apt to do in these days, when the proceedings of the Medical Council and the medico-political doings of our various Universities have to be reported—the task of examining them all conscientiously seems hopeless. We make these remarks in an apologetic tone in consequence of the apparent delays which take place before many good works are noticed. The fourth volume of the "London Hospital Reports" fully maintains its character. It is ably conducted by its present Editors, amongst whom that indefatigable worker, Mr. Hutchinson, figures prominently. His contributions are both good and extensive on the present occasion. His Hints on the study of Skin Diseases, and his Lectures on the Use of the Ophthalmoscope, are clearly written. Mr. Curling has some further observations on Lumbar Colotomy, with the details of four cases of operation. Mr. Maunder contributes a paper on Ligature of a Main Artery to arrest Traumatic Inflammation, with others of a practical character. Dr. Sutton has some good clinical remarks on Tricuspid Regurgitant and Mitral Pre-Systolic Bruits, with a carefully-written Report on the Morbid Anatomy of Cholera. Dr. Hughlings Jackson continues his investigations into Diseases of the Nervous System; and there are several other good papers on surgical, medical, and other subjects by Mr. Couper, Mr. Little, Dr. Head, Dr. Mackenzie, and others.

OUR LIBRARY TABLE.

Essays on Educational Reformers. By ROBERT H. QUICK, M.A. Trin. Coll. Camb., late Second Master in the Surrey County School. London: Longman, Green, and Co. 1868.—We have read this work with interest. It contains a good deal of information on a subject that is just now attracting attention, and which is destined to attract much more. The author speaks very modestly of his own labours. The sources of original ideas in any subject are, he says, few, "but for irrigation we require troughs as well as water-springs, and these Essays are intended to serve in the humbler capacity." They are, however, more than this. The author evidently has a practical acquaintance with his subject; he thinks clearly and writes unaffectedly. Besides some very good chapters on the School of the Jesuits, Comenius, Locke, Jacotot, and Herbert Spencer, which we read with great satisfaction, the author has thrown together his own thoughts and suggestions on various subjects connected with education, and these are shrewd, sensible, and well worth reading.

Synopsis of the Pathological Series in the Oxford Museum, provisionally arranged for the use of Students after the Plan of the Hunterian Collection, and chiefly under the Divisions of the Hunterian Catalogue. 8vo, pp. 51. Oxford, 1867.—The title of this work sufficiently explains its nature. The synopsis is preceded by an introduction written by Dr. Acland. We would give prominence to the following appeal. "Should these pages," writes the learned Professor, "meet the eye of any who can serve the progress of scientific education in Oxford, they may give real help by presenting to us good dissections, and especially microscopic preparations, in morbid anatomy. Some illustrations of the minute morbid changes of the nervous system are much required. ..... Whatever will illustrate the pathology of vegetable or animal life, taken in the sense of this introduction, whether drawings, plans, chemicals, or dissections, will at once find its natural place in the classification of the series to the elucidation of which these pages are an instalment." There must be many workers who would be glad to respond to this appeal.

Notes on Epidemics. For the use of the Public. By FRANCIS E. ANSTIE, M.D., F.R.C.P., Senior Assistant-Physician to the Westminster Hospital. London: Hodder and Stoughton.—We are very sceptical of the advantage of most medical books meant for the public. But we are delighted to see Dr. Anstie's Notes on Epidemics published in a cheap form. We do not know any book of the kind so worthy of careful reading by non-professional persons; and even medical men will read it with great pleasure. Dr. Anstie is an accurate physician, thoroughly familiar with the latest investigations of science, and in constant clinical contact with disease; he has, moreover, the strong human interest in great sanitary problems which has always characterised our best physicians. In addition to all this, he is a good honest writer; so that his Notes on Epidemics are most valuable reading, and most properly published in a cheap form.

The Early History of Anatomy. An Address delivered to the Hunterian Medical Society, in the University of Edinburgh, at the Commencement of the Session 1867-68. By J. WARBURTON BEGBIE, M.D., F.R.C.P. Edin. Edinburgh: Oliver and Boyd.—A learned and interesting address. It is difficult to say whether the history of the knowledge of anatomy or of the ignorance of it is the more interesting. The history of both, however, is given in Dr. Begbie's address in just as much detail as is of use to medical men generally. Hippocrates' ignorance of myology, Aristotle's notions that the brain was destitute of blood, and that the back of the skull was empty, and Galen's inaccuracy about the number of ribs, are fine specimens of the ignorance of men whose authority for ages was greater than the facts of nature. If a busy physician can find time to write such an address as this, busy practitioners should find time to read it.

A Manual of the Pathology and Treatment of Ulcers and Cutaneous Diseases of the Lower Limbs. By JOHN KENT SPENDER, M.B. Lond., Surgeon to the Mineral Water Hospital, and the Eastern Dispensary, Bath. London: John Churchill and Sons. pp. 90. 1868.—The author discusses the production of ulceration of the lower extremities, describing the varicose, the syphilitic, the scrofulous, and traumatic ulcers, and adding a sketch of the more common forms of skin affections seen on the lower limbs.

Principles of Organic Life. London: Robert Hardwicke. 1868.—This is a well-bound and nicely got-up book, with an enticing title, and we opened it with an anticipation of interest. We have come to the conclusion, however, that the best part of the work is its outside. It is an anonymous publication, wordy and ungrammatical in style, and as a quasi-scientific production, we are bound to say, not worthy of serious criticism.

A Compendium of Practical Medicine and Morbid Anatomy. By WM. DALE, M.D. Lond., M.R.C.P., &c. London: John Churchill. 1868.—The author has not aimed at producing a very comprehensive book on an original pattern. He has brought together and condensed, as he says, the gleanings of many years. It is practical, clearly written, and fairly level with the knowledge of the day. It scarcely comes up to our

idea of what such a compendium should be, but we frankly confess that the task is by no means easy of execution.

Irritability: Popular and Practical Sketches of Common Morbid States, and Conditions bordering on Disease; with Hints for Management, Alleviation, and Cure. By JAMES MORRIS, M.D. Lond., Fellow of University College, F.R.C.S., &c. London: Churchill and Sons. 1868.—This little work will repay perusal. There is nothing particularly new in it, but the author's observations are placed before the reader in a light, easy way, which makes them pleasant and suggestive reading. The only fault we have to find is, that, notwithstanding the excellence of its style, the matter is of rather an indefinite character.

REPORT
OF
The Lancet Sanitary Commission
ON
THE STATE OF ST. PANCRAS WORKHOUSE.

ON the 23rd December, 1865, we published a report on the St. Pancras Workhouse. Since that time the parochial authorities have been changed. A new Board of Guardians has been formed, and, under the able presidency of Mr. Wyatt, J.P., reforms have been effected which have been eulogised by the Poor-law Board, and even deemed of sufficient importance to be laid before Parliament. Amongst these changes, not the least valuable have been those connected with the management of the workhouse and the treatment of the in-door sick; but as the attention of the public has been twice directed to alleged defects within the short space of a single week, it seemed desirable that a new inspection should be made, which, whilst affording a comparison with our previous report, should at the same time point out the defects which still require to be removed. Our request was met most cordially by the guardians, and our investigations have been assisted by all the officers.

It is but fair, in the first place, to draw attention to the very serious defects noticed in our previous report, which have been remedied with more or less success. Thus in the sick wards it was found, at our first visit, that the bedsteads were cruelly short. They are now replaced by others of sufficient length. From motives of economy, the guardians had reduced the allowance of stuffing for each mattress from 40 lb. to 25 lb. The quantity now allowed is 40 lb. The supply of handbasins is now generally sufficient; and although several of the lavatories are out of order, great improvements have been made. Baths are much more plentiful: new ones have been erected in the nursery, the itch wards, and for the use of the aged and infirm. The scanty supply of towels is now completely remedied, every patient having one; and besides these, there is a large roller towel in each lavatory for common use. The staff of nurses has been largely increased, both in number and efficiency. The infirmary is supervised by a well-paid matron, of skill and intelligence; and the paid staff has been increased from sixteen to twenty-one, and the amount of their salaries proportionately augmented. There are now also two paid night nurses, instead of one. The objectionable practice of detaining acute cases of insanity in the wards for imbeciles has been entirely done away with. The number of insane has thus been reduced one-third, and the nurses have been set at liberty to attend upon the sick. Lastly, a most important improvement has been made in the medical staff, by the appointment of a third resident medical officer, and by increasing the salaries for the very heavy duties which all perform.

But it must not be supposed that the institution is by any means as perfect as it should be. Nothing is more obvious than the utter inadequacy of this old-fashioned and straggling building for the due accommodation and classification of the incongruous mass of wretched and suffering humanity which is huddled beneath its numerous roofs, and distributed amongst its more than two hundred wards. Every possible expedient has been adopted to meet the daily increasing demands upon its space. The basement story has long ago been converted into sitting and sleeping rooms, and the corridors are still occupied nightly by beds placed upon the floor. If this is necessary now, when the number of the inmates is at the lowest point, what must be the state in winter, when doors and windows must be closed, and hundreds more pressed in. The guardians look forward with anxiety for the time when all the imbeciles will be removed to the metropolitan asylum, and the sick to the new infirmary they are about to build elsewhere. But with more than 6000 out-door poor continuously relieved, it is obvious that candidates may be found for every possible vacancy, and that the true remedy for overcrowding will not be found in increased accommodation, but in a still more efficient administration of out-door relief.

Our attention was first directed to the nursery, which has been so severely censured by the coroner's jury (an account of which will be found in another column); and we must so far endorse the explanation given by the clerk of the guardians in *The Times* as to there being a paid nurse in charge of these children, and that she is assisted by two or three pauper inmates, as the case may be. At the period of our visit there were twenty-six children in the ward, all of whom were under seven years of age, and two in arms. It would appear that the number varies greatly: on some occasions it is reduced to five or six; whilst lately the numbers have risen, owing to the prevalence of ophthalmia at the schools at Plaistow, the children being detained to preserve them from the infection of this very troublesome disease. The cubic space of the apartment is 7865 ft.; and if we deduct 800 cubic feet for the adult attendants, the space for each child will be under 300 cubic feet. An average of several months shows that the cubic space for each inmate of the ward has been 370 ft. On the whole, we are bound to say that, whilst the numbers are limited to twenty or twenty-five, the space is sufficient. The children have a well-flagged yard, to which they have continual access in fine weather; and their healthy and cleanly appearance reflects credit upon the management. The most serious defect is a watercloset opening directly on the ward, into which it is distinctly ventilated.

The infant nursery (Ward 62) is a far more objectionable apartment. It contains twenty-one women and twenty-seven children. It is low, dark, and comfortless. There is an entire absence of classification, married women and prostitutes being placed in contiguous beds. The innocent girl is inseparably associated with the lowest forms of vice. One of the inmates was sent to prison last week, and several have had four or five illegitimate children.

Throughout the infirmary the overcrowding has been materially lessened since our last report, and the practice of placing beds upon the floor has ceased. There is, however, still room for some improvement in this respect, as there are few sick wards which give more than 800 cubic feet per bed, and in the surgical ward, No. 16, with 28 beds, containing several cases of severity, there are but 718 cubic feet per bed.

Throughout the entire establishment the closets are ill-constructed and most objectionable; with two exceptions they are imperfectly ventilated, and communicate directly with the wards. In the body of the house, and particularly in the quarters occupied by the female aged and infirm, they are insufficient in number, and without proper division of the seats. The water apparatus is most imperfect, and continually out of order. There is no supply of paper, and the stopped traps are a source of perpetual trouble and expense. The plumber's account amounted to £160 last year, and it is really a question

whether the substitution of earth-closets would not be advisable, since it is impossible to improve the existing arrangements without immoderate expense.

The furniture of the wards has also been materially improved, bed-rests, foot-warmers, and many other comforts having been freely supplied since our previous report; but the condition of the mattresses is not so good as it ought to be. Many of them were hard and lumpy, and although the flock is teazled out every few months, it gives out an odour which is neither wholesome nor agreeable. We understand 20 beds of coire have been ordered; but we would urgently recommend the guardians to adopt hair, which, although at the outset more expensive, is in the end far more comfortable and economical.

No material improvement has been made in the lying-in wards, which are objectionably placed behind buildings that seriously obstruct both light and ventilation. There are still too many beds in the lying-in ward, and the space allowed to each is in every case less than 800 cubic feet. Two cases of puerperal fever have occurred within the last six months, one of which was fatal. This should prove a sufficient warning. We observed also that the chimney smoked, to the serious discomfort of the inmates.

Great improvements are being carried out in the infirm and bedridden wards. The dreary whitewash is being replaced by cheerful colour, which will also relieve the gloominess of these half-lighted and, on the whole, badly ventilated apartments. The ventilation is effected solely by opening the windows, and, as the inmates have an incorrigible habit of closing them, the air, particularly at night, is often very foul. We would suggest the introduction of Galton's stoves in place of the present unwieldy fireplaces, and the introduction of ventilators over which the inmates could have no control.

The mortality of the workhouse, notwithstanding a remarkable freedom from epidemic disease, appears to have gradually increased within the last few years. The annual average from 1857 to 1863 was 410·85, and for the last three years 566. The cause of this serious increase ought to be specially inquired into. Dr. Markham's dietary for the aged and infirm has been introduced. Great objections are made by the inmates against the soup, which the medical officers state produces flatulence and diarrhœa. The females are served with rice and the men with suet pudding on the pudding day, this being at their own request.

The nursing, although improved, is not yet by any means satisfactory. We understand that a staff of Nightingale nurses has been promised for the new infirmary, but we are at a loss for reasons why they should not be introduced at once. A lady superintendent is, we believe, quite ready to enter upon her duties, and her services should be accepted without delay.

In conclusion, it is necessary to repeat that the medical staff ought still to be considerably augmented. A few facts will prove that the work is, notwithstanding the exertions of three energetic medical officers, most imperfectly performed. Of 1697 inmates, no less than 983 were at the date of our visits directly under medical care, and in the winter there are many more. Of these, there is scarcely one who does not require continuous care and treatment. The entire sanitary state of the establishment has to be revised, and every new inmate has to be examined and reported on before admission to the body of the house. Under these circumstances we can scarcely wonder that there is no attempt made to keep any systematic record of the work performed. With the care of six or seven hundred aged and infirm, whose complaints are all but constant, it is simply impossible to take notes; and it cannot be surprising that obscure complaints, such as cancer of the liver and kidneys, and even lung disease, should be occasionally overlooked. If the whole time of Dr. Gibson were spent in the sick wards, it would not be more than is necessary for the simple welfare of the many acute cases which he is constantly called upon to treat; and he acknowledges the utter impossibility of keeping systematic notes, such as would enable him to prove beyond the possibility of dispute that each case had been carefully examined and adequately treated. The prescription and diet card is the sole record of what is done, and the time of the medical officer is wasted in filling up the useless Medical Relief Book. We hear with satisfaction that the guardians propose to have a regular staff of physicians and surgeons at their new infirmary, and house-surgeons to do the usual routine. We would urgently recommend the adoption of a similar arrangement now. The employment of matured skill in the treatment of chronic disease, and of consultees to assist the judgment of the younger members of the profession (who usually accept appointments of this nature), and the opportunity thus given for introducing pupils and of affording publicity, would confer the very highest advantages on the sick poor, and be a safeguard against such imputations as those which were made during the recent inquests.

TREATMENT OF FRACTURES.

To the Editor of THE LANCET.

SIR,—In reference to Mr. Winchester's communication on the above subject, I cannot see the objection he appears to entertain to the use of Liston's long splint in fractures of the femur, particularly if, according to his own statement, at the expiration of seven or eight weeks, when it is removed, the callus is not sufficiently firm to resist the action of the muscles in gradually restoring the natural shape of the bone.

I have been in the habit of using it for many years for almost every variety of fracture of the femur that has come under my care; and from the great success and satisfactory results that have almost invariably followed, I can speak in the highest praise of it; and although I would not wish in any way to disparage those advocated by Mr. Winchester, I believe the long splint to be not only the most comfortable, but the most useful appliance that can be recommended to prevent shortening and other ill effects likely to arise from this accident.

I am, Sir, your obedient servant,

ALLEN DUKE,
August 17th, 1868. Consulting Surgeon to the Chichester Infirmary.

To the Editor of THE LANCET.

SIR,—I have just received THE LANCET of the 8th inst., and have read Mr. Erichsen's letter. He has, I think, taken undue umbrage at a remark of mine, and would attach to it an interpretation it does not bear.

I hasten, therefore, to disavow having intentionally offered him the slightest personal discourtesy. As to having exceeded the bounds of ordinary liberal and courteous criticism, this the entire sentence—partly quoted by him,—having reference to the future and not the past, clearly disproves. Mr. Erichsen's position and well earned reputation as a teacher and a writer, and therefore a thinker, of which he is very naturally jealous, give great weight to any expression of opinion on his part, and involve, in justice to himself, a corresponding exercise of caution in dealing with questions that admit of a difference of opinion.

The reasons assigned in his lecture on the point in dispute appearing to my mind insufficient and unsatisfactory, and which on reflection Mr. Erichsen may possibly admit to be so, and having been voluntarily brought before the profession, I was anxious, as pointedly, to draw his attention to their inconclusiveness, in the hope that a matter of such deep interest might be considered worthy of reinvestigation, and not be allowed to remain in its present uncertain state.

Having, I hope, succeeded in this object, I am inclined to take Mr. Erichsen's energetically indignant repudiation of an imaginary accusation as an assurance of his determination to render his valuable aid in the endeavour to clear up this much vexed question.

Trusting that henceforth personalities will be eliminated, and the subject, resting on its merits, be discussed calmly and scientifically, I am, Sir, your obedient servant,

Maidenhead, Aug. 18th, 1868. W. H. B. WINCHESTER.

THE LANCET.

LONDON: SATURDAY, AUGUST 29, 1868.

THE Address of Professor HAUGHTON, at Oxford, on the relations of food and force in the animal economy, marks an era in physiology. We do not mean to say that the Irish professor is the sole competent and final authority on this great question; but he stands in a peculiar relation to it. He is, at any rate, a physiologist of the first rank, and his original researches have conducted him to certain conclusions which come at a very critical time. It is not too much to say that his adhesion, on independent grounds, to what may be called the new physiology of food, is pretty well equivalent, under the circumstances, to a settlement of the chief matters in dispute.

For years the theory of LIEBIG, which classified the elements of food under the two main groups of "flesh-formers" and "heat-producers," respectively, held nearly undisputed sway in the schools. But for a long time past there has been a growing discontent among physiologists of all countries with this beautiful and fascinating theory; and one by one the greater number of the active workers in this department of science have lapsed into open or silent rebellion against the doctrine. No better proof of the wide-spread disaffection to the classic belief could have been given than the eager enthusiasm with which the not very complete researches of FICK and WISLICENUS were received, about two years ago. Our readers do not need to be told that the Liebigian doctrine assigned the production of muscular force to the decomposition of nitrogenous tissues, the waste of which was supposed to be represented by the urea of the kidney secretion; and the production of animal heat to the combustion of non-nitrogenous matters; thus marking off a very clear and definite office to each of the two great divisions of organic foods. The experiments of FICK and WISLICENUS showed plainly enough that it was impossible to account for muscular work done in a given period by the waste of nitrogenous tissues during the same time; and on the other hand it was not only possible, but certain, that such force can be produced by the direct oxidation of non-nitrogenous food. It is unnecessary here to trace all the modifications and corrections of FICK and WISLICENUS' conclusions which have been made by FRANKLAND, PARKES, and others, since we fully described these at the time. The point of interest at present is that, simultaneously with FICK'S experiments, another series were being carried on by Professor HAUGHTON, without any communication. These experiments abundantly proved that increased muscular exercise does not increase the average daily excretion of urea, and that it is certain that the muscular force must be otherwise accounted for than by the waste of muscular tissues. Joining these facts with the remarkable diminution of urea produced by PETTENKOFER and VOIT in dogs, and by RANKE in experimenting on himself, by mere starvation, it is plain, on the one hand, that a certain portion of the urea daily excreted is due to vital work unconnected with muscular exertion, and on the other hand that the remaining urea does not represent a sufficient amount of force developed to account for the muscular work. Professor HAUGHTON repudiates the extreme view, to which some physiologists have leaned since the experiments of FICK and WISLICENUS, that nitrogenous foods contribute no portion of the force employed by the muscular system; he inclines to the belief that the combustion both of nitrogenous and of non-nitrogenous foods is available for this purpose, but he draws an inference from the extremely different food eaten and amounts of urea excreted, by the carnivora and men who live like them, and the ruminants and men who live like them, that the kind of force stored up by nitrogenous compounds is available for brief and violent developments of muscular activity, while the forces generated from the combustion of such food as the ruminant eats is adapted for long and steady exertion.

The most practical part, however, of the new views, which may now be said to be established, respecting the relations of urea to the generation of force in the body, is the entirely new ideas we are acquiring as to the relative importance, as regards the production of bodily exhaustion, of muscular exertion and of the organic processes which maintain life. It is a common and most disastrous mistake to suppose that a man lying still in bed, suffering from acute fever, is undergoing the minimum of those processes which can exhaust him. Professor HAUGHTON shows (as indeed has been done, though less forcibly, by others) that the elevation of the bodily temperature by so much as 5° Fahr. (and it is often more than this) involves an expenditure of force *greater than that which would be employed by an agricultural labourer in a hard day's work*. We know where this force comes from, for in the case of typhus, which Professor HAUGHTON quoted, and in pneumonia and other acute diseases which he might have mentioned, the excreted urea is enormously increased, showing a large and entirely abnormal combustion of the nitrogenous tissues of the body. The inference is irresistible. The demand on us is peremptory for supplies of combustible food which shall be consumed by the oxidising process, and thus supply the force which must have otherwise been generated at a dangerous expense to the tissues; and it is important to remark that Professor HAUGHTON not only recommends beef-tea on this ground, but distinctly acknowledges that *alcohol*, where useful, acts in the same way. There is, no doubt, room for great difference of opinion as to the frequency and the extent to which alcohol should be used in acute disease, and it cannot be too often repeated that individual cases must be treated on their own bases; but it may be hoped that we shall henceforward hear no more the statement that alcohol does not act as a *food*.

Equally pungent were the remarks of Professor HAUGHTON on a different and an even more disputed topic—the pathology and treatment of Asiatic cholera; and it may here be remarked that the very large and distinguished audience emphatically cheered the lecturer's words. He expressed a great regret that an authority so distinguished as that of Sir THOMAS WATSON should have been enlisted, for no apparently sufficient reason, on the side of the cholera theory of Dr. JOHNSON, which teaches that we must assist Nature to eliminate the morbid matters. He drew a graphic picture of the prostration (very different in cause, but equally great with that of typhus) in which the cholera patient is placed during collapse;

and while freely allowing that the attempt to pour in alcoholic food, and especially opium, is useless and mischievous, insisted energetically that we ought not to run any risk of adding to the bodily prostration by active measures of our own, and that any hopes for the future which we can entertain must lie in the direction of supplying to the body directly its lost heat. There was a hearty ring in Professor HAUGHTON'S denunciation of that metaphysical figment—"mother Nature," whom we are to assist with filial reverence, forsooth, in carrying out her pathological designs—which struck home to the common sense of the audience; and when he derisively declared his doubts whether the venerable female in question might not, after all, be only a *stepmother*, with very bad principles and temper, the storm of laughter and cheers that arose had a really prophetic significance, for it meant that the reign of metaphysics in medicine is pretty well over. Altogether, the address was highly successful. The occasion was a great one, the subject was of immense importance, and we feel sure that we speak the general mind when we say that Professor HAUGHTON well performed his allotted task.

IT would be vain for us to attempt a discussion of the wide range of topics which were introduced by the various speakers in different "sections" at the late meeting of the British Association, for the subjects are so many and so various that we should convey a clear idea of nothing. Had we time we would willingly make some remarks upon the scientific stand-point assumed by the President, Dr. HOOKER, whose speech was a very interesting, if somewhat unnecessarily defiant, appeal to common sense and the principle of scientific verification as against dogmas of all kinds, and who expressly defended Darwinism. We should also be glad of an opportunity to criticise Prof. TYNDALL'S exposition of the respective duties and limits of science and of faith; but at present the only remarks for which we can afford space are these two—firstly, that the speech was extremely clever, and, secondly, that if he had been a Bishop, instead of a Positivist, Professor TYNDALL could hardly have been more condescending, and at the same time more confidently dogmatic, in his manner.

But we must deliberately avoid generalities, and say a few words about the "Biological" section, or rather the "Anatomy and Physiology" department of that section, which is that to which doctors chiefly do resort; for it happened that one or two matters came under discussion there which are of more importance than those which are usually discussed in the Physiological section of the British Association. Of these, the Mercury report of Dr. HUGHES BENNETT, which had also been brought forward at Oxford, and was now again submitted to medical criticism, was perhaps the most interesting. Notwithstanding the odd and rather embarrassing fact that a considerable number of ladies were present, this unsavoury subject was discussed at great length; and we are informed that there was an indisputably superior weight of opinion in favour of the conclusions expressed in the report—namely, that in dogs mercury is entirely incapable of increasing the secretion of bile, and that the analogy is sufficiently good to allow of our concluding the same of its operation in man. Now, in commenting on this conclusion, and the various arguments which have been urged against it at Norwich and elsewhere, we must, in the first place, express our entire conviction that the experiments themselves were performed with an amount of care and labour which renders them perfectly reliable, and for which Drs. A. GAMGEE and FRASER deserve the warm thanks of the profession. It seems to us established beyond a doubt that mercury never increases, and that in large doses it seriously diminishes, the flow of bile in *healthy* dogs. And in spite of the objections which have been made about the infeasibility of arguments drawn from experiments on dogs (objections which are chiefly put forward by persons who are not familiar with experimentation on animals, as Dr. GAMGEE rightly observed), we consider that the inference of a similar ineffectiveness of mercury as a cholagogue to *healthy* human beings is quite legitimate. It is curious, however, and we must say it is strange, and reflects a good deal on medical logic, that more stress has not been laid on the fact that this proved nothing as to the possible action of mercury in *diseased conditions*. We would not be supposed to raise this objection in the spirit of cavil. For our own parts, we have a profound distrust of mercury as a reliable cholagogue under any circumstances whatever. But we wish to point out that the argument as it stands is less cogent than Dr. BENNETT and some others seem to think. Among the tedious host of irrelevant and silly objections that have been raised, this, which really is important, scarcely receives due attention.

Another incident of importance in the physiological section was the reading by Mr. FLOWER of a remarkable paper on the true relations between the permanent and the milk teeth of Mammalia, which was suggested by some most interesting observations recently made by him on the Cetacea and the Marsupialia more particularly. The immediate tendency of the argument was to support the hypothesis that the milk teeth of mammals are not truly primary, but secondary, or as it were additional, to the permanent teeth; but the facts which were brought forward suggested much more than this; and though Mr. FLOWER abstained with characteristic moderation from large speculations, Mr. HUXLEY did not hesitate to point out, in the discussion, that these new observations do really suggest new and most powerful arguments in favour of the Darwinian hypothesis of gradual transition between classes of animals. We have no space for the exposition of these facts, and refer to them here chiefly to induce our readers to study Mr. FLOWER'S very valuable paper carefully and in detail.

The question of the action of alcohol was brought forward by Dr. ANSTIE'S paper on the alteration which that agent produces in sphygmographic pulse-curves, and a really interesting step in the discussion of this difficult question was made. Professor BÉHIER, of Paris, announced that he had verified the main facts, which have been already stated in this journal, and exhibited a new and ingenious modification of the sphygmograph, with a view to effecting that very important object, the exact graduation of spring-pressure, by means of which Dr. SANDERSON has so greatly improved the clinical value of the instrument. The discussion which arose upon the exact *modus operandi* of the remarkable elevation of arterial tension caused by alcohol when it acts well, in which Professor BÉHIER favoured the idea of an action on the *vagus*, while the author of the paper argued for the predominance of *sympathetic* phenomena, raises a physiological point of much difficulty and importance, which will have to be thoroughly investigated.

The discussion of the physiology of language, by Dr. JACKSON and Professor BROCA, is too large and important a matter to be dealt with here; but on a future occasion we shall give an analysis of Dr. JACKSON'S paper, and of the debate which followed. We must also defer a reference to important papers by Dr. RICHARDSON on the physiological effects of freezing the nervous centres of birds and frogs, and on the action of the series of methyl compounds. The latter, which is a most elaborate report, contains statements which, if verified, will revolutionise large and important departments of therapeutics.

Finally, we may just mention that Professor BÉHIER brought forward the description of a new and extremely interesting variety of leucocythæmia, which is of sufficient importance to demand a detailed and careful review on a future occasion.

Altogether, the meeting of the British Association has been a most pleasant one. But for the accident of one or two provoking rainy days, nothing could have gone off better. The people of Norwich showed a generous and indeed profuse hospitality well worthy of their fine old city; and those who were fortunate enough to be the guests of any of the medical community seem to have come unanimously to the conclusion that the Norwich doctors live an almost exceptionally harmonious and fortunate life; which, at any rate, contrasts very favourably with what is met with in some provincial towns. Last, but not least, be it noted that on Sunday, in the cathedral, Dr. MCGEE, Dean of Cork, preached one of the most eloquent sermons ever heard in an English pulpit, in which it was easy to recognise the growth of a conviction, among the more honest and intelligent of the clergy, that the old theological way of meeting the intellectual difficulties of men of science about religion must be frankly and entirely given up; and a really scientific method of investigating all those subjects where religion and science touch must be adopted by the clergy as universally as by physicists or physicians.

IT is to be hoped that our Report on the Sanitary State of Guildford will arouse the inhabitants to a sense of the importance of electing gentlemen as members of the local Board of Health who will be capable of appreciating the advantages and true economy of sanitary reform. Nothing can be more detrimental to the interests of the town than the annual recurrence of epidemic diseases. It is no light matter when the best apologist is obliged to confess that the general mortality has not been raised by twenty-two deaths from scarlatina in two months of the present year. The integrity of every family is threatened in the form of death. The cost of moderate taxation for efficient drainage and other preventive measures is as nothing compared with that which the recurrence of disease involves. Who shall count the loss and inconvenience resulting from the 400 cases of scarlatina which have occurred since the 1st of June, to say nothing of the deaths and chronic illnesses which must follow in their wake, and the evil reputation which frightens away visitors from the environs of an otherwise charming little town? Nature has, indeed, done its best for Guildford. She has provided a perfect natural drainage and an inexhaustible supply of water in the porous chalk. But human art has done its best to spoil her handywork. It has made the chalk the receptacle of sewage, with the certainty of contaminating the purity of the wells, and of casting grave suspicion on that of the gigantic subterranean watercourse from which the public supply is drawn. "Nothing like cesspools" is, unfortunately, the general idea; and hundreds exist, of which some have never been opened during the lives of the present generation. Where does all this refuse go to? The answer seems to be, that it is carried along faults and channels in the chalk, to be washed out by the springs which permeate them.

But public opinion must be enlightened on this important question, and the reflection of its knowledge will then appear at the local Board of Health. At present that body altogether fails to appreciate the importance of the duties submitted to its charge. Armed by the Legislature with most effective powers, the Board appears to have taken no steps towards using them. It has commenced its labours at the wrong end. It has spent enormous sums upon the surface, making the town a whited sepulchre—clean externally, but leaving it foul and rotten underneath. It has taken no steps to ascertain either the real existence or the progress of a disease which, to repeat the words of our Commissioner, demands, above all others, the very closest care and supervision to prevent its assuming the epidemic form. We are gratified, however, to observe that our efforts have not been entirely thrown away, and that there is an indication that the scales are falling, though slowly, from the eyes of the members of the Board. They have appointed a medical officer of health, who may be expected to instruct them in their duty, and we trust soon to see them entertain a higher estimate of the onerous responsibility imposed upon him than that which is implied in the paltry salary they have proposed to give. Let them read the Act of Parliament which they profess to administer, and they will see how little they have done, and how much they require help and instruction. They must commence their labours in the crowded courts, amongst the dwellings of the poor; and not cease until the houses are ventilated, the overcrowding reduced, the filthy drains and closets cleansed and disinfected, and the inhabitants taught that exposure of infected persons is a crime. The medical officer of health must be both their guide and agent. With the assistance of the inspector, he will report all nuisances described as such under the Sanitary Act; and if nothing more be done, there will be a reasonable hope that the town will be delivered from the reproaches from which it cannot now escape. Lastly, sooner or later the greater questions of water-supply and drainage must be solved. The water must be taken from a deeper source, and a comprehensive system of drainage must be made, to carry off the sewage to a distant point where it can be distributed on the land.

WE have great satisfaction in announcing that the Secretary of State for War has been pleased to recognise the useful consequences which may in some cases result from the independent inspection of barracks by our Sanitary Commissioners, and has granted us permission to extend that inspection to the barracks of the United Kingdom. The permission does honour to the Government, and is an earnest of their desire to expose and remedy defects. It is a tribute to the power of the press and the value of public opinion, without the approval of which it is often difficult to obtain the consent of Parliament even to necessary and economical reforms. It also affords a

testimony to the accuracy of our Commissioners' Reports, of which both we and they may be most justly proud. We cannot refrain from contrasting this candid and liberal treatment with that we have experienced from the Poor-law Board. In the War Department we have received the countenance and assistance of military officers of every capacity and rank, the highest vying with the common soldier in eliciting the truth. But at the Poor-law Board not a single effort has been made to help us. Our Commissioners have received no encouragement to pursue their necessary and useful labours. Our Reports have been described as exaggerations, published for sensational effect, and our motives entirely misconstrued. Let us hope that the example of the Secretary of State for War will not be thrown away upon the noble President of the Poor-law Board, and that our future efforts on behalf of the sick poor will be more generously aided and more favourably received.

Our next impression will contain a Report on the Barracks in the Tower of London. We shall then suspend for the present the publication of such Reports, in order to avail ourselves of the permission we have now received.

Medical Annotations.

"Ne quid nimis."

BROMIDE OF POTASSIUM.

THE results of certain experimental researches into the action and therapeutic value of bromide of potassium have just been published in the July number of the *American Journal of Medical Science*, by Dr. Bill, the Director of the United States Army Laboratory at Philadelphia. Dr. Bill first records his personal clinical knowledge of the drug. He found the bromide diminish sensibility—but by acting upon the periphery of nerves rather than the central nervous organs,—as exemplified in its allaying the irritability of the pharynx, the urethra, the conjunctiva, &c., in diseased states. The experimental exhibition of the drug increased the quantity of urine, the degree of acidity, the amount of colouring matter, and the chlorides notably. The urea was not affected, and the phosphoric acid varied, being, however, augmented by small doses of the bromide. Uric acid was increased by bromide of potassium. The carbonic acid exhaled from the lungs was decreased in a marked manner at first, but for several days succeeding its use the amount of the gas exhaled rose above the normal quantity. Lastly, the fæces were diminished in weight. Dr. Bill argues that it is the *salt*, and not the bromide, that produces the results under discussion, and in this way: the bromide of potassium exchanges with the chloride of sodium in the body, as regards the bromine and chlorine, so that chloride of potassium passes off in the urine, and bromide of sodium remains behind to take the place of the ordinary chloride of sodium in all nutritive processes. The two bromides of sodium and potassium are said to act differently; when the former is given, the fæces are not lessened, and thirst is felt, which is not the case with the potash salt. Bromide of sodium, then, is, according to Dr. Bill, the physiological substitute for chloride of sodium. That the bromide of potassium does not act as a hypnotic in limited and small doses is believed to be shown by the fact that there is no evidence in the experiments of a diminution of nerve force; that the effects of the drug do not increase with the dose; that there is no diminution in the total carbonic acid excreted; after the withdrawal of the drug the carbonic acid augments, showing that only its exit has been interfered with. Dr. Bill allows that his researches show that a diminution of function of the mucous surfaces of the body does follow the use of the bromide; and it is by deadening the sensibility of irritated peripheries—by which the sensory ganglia are made less cognisant of local evil, so that sleep is *allowed*, not compelled, as in morphia—that the drug acts. When larger doses are given, the carbonic acid accumulates in large quantity in the blood, and the action on the ganglia is more marked, and these two conditions, but especially the former, induce a sleep which is similar to that which arises from a crowded room, or redundant food. According to Dr. Bill, then, bromide of potassium, in its legitimate action, acts as an anæsthetic of the nerves of the mucous membranes, and a depressor of their action. The hypnotic effects are secondary. The use of the drug in epilepsy is explained by its action on excentric or peripheral causes of the seizures in that disease.

SURGERY IN THE MIDDLE AGE.

IT would appear that the health and lives of the citizens in the fourteenth century were well looked after by the authorities. In the "Memorials of London" several cases are mentioned in which the treatment to which wounded or sick persons had been subjected was examined by competent persons, and their decisions given thereon. Thus, in the records of the City in 1354, we find an account of such an inquisition given in the following words:—"The Prior of Hogges, Master Paschal, Master Adam de la Poletico, and Master David de Westmerland, surgeons, were sworn before the mayor, aldermen, and sheriffs, to certify them as to a certain enormous and horrible hurt on the right side of the jaw of Robert de Shene, appearing: whether or not such injury was curable at the time when John le Spicer, of Cornhulle, took the same Thomas under his care to heal the wound aforesaid. Who say upon their oath, that if the aforesaid John le Spicer, at the time when he took the said Thomas under his care, had been expert in his craft or art, or had called in counsel and assistance to his aid, he might have cured the injury aforesaid; and they further say, that through want of skill on the part of the said John le Spicer, the said injury under his care has become apparently incurable." Such a kind of inquiry at the present day would be deemed unfair and unsafe; but it gives evidence of the jealous care of our forefathers in protecting the citizens from incompetent persons practising the art of surgery. The following quotation from the "Memorials" affords another instance of this:—"On Monday, the 10th April, 1390, Master John Hynstok, Master Geoffrey Grace, Master John Brademore, and Master Henry Suttone, surgeons, were admitted in the chamber of the Guildhall of London, before William Venour, mayor, and the aldermen, and sworn, as master surgeons of the city aforesaid, well and faithfully to serve the people in undertaking their cures, taking reasonably from them, &c., and faithfully to follow their calling, and faithful scrutiny to make of others, both men and women, undertaking cures, or practising the art of surgery; and to present their defaults, as well in their practice as in their medicine, to the aforesaid mayor and aldermen, so often as need shall be. And, further, that they shall be ready, so often as they shall be warned thereto, to examine persons hurt or wounded, and others, &c., and give faithful information to the officers of the city aforesaid as to such persons hurt or wounded, and others, whether they are in peril of death or not; and all other things touching their calling faithfully to do."

MEDICAL CANDIDATES FOR SEATS IN PARLIAMENT.

UP to the present time the following members of our profession are in the field for Parliamentary honours:—Dr. Brady for Leitrim, Dr. Brewer for Colchester, Mr. Clement for re-election at Shrewsbury, Mr. Mitchell Henry for Manchester,

Dr. Richardson for the Universities of Edinburgh and St. Andrews, Dr. Humphry Sandwith, C.B., for Marylebone, Mr. Alfred Smee for Rochester, and Mr. Vanderbyl for Bridgwater. It is also stated that Sir Dominic Corrigan will offer himself to the electors of an Irish borough. There has been no such list as this since the passing of the Reform Bill in 1832, or indeed before. We have no recollection of more than three or four members of our profession seeking for seats in the House of Commons on the eve of any previous election. The activity exhibited on the present occasion is a good sign. It cannot be doubted that we are entitled as a profession to a much more effective representation in Parliament than we have hitherto obtained. It is probable that most of the gentlemen above named will be elected, if their brethren exert themselves as they should do in furthering their election. With one exception the medical candidates are of liberal politics. They are all gentlemen well known, and justly entitled to seats in the lower house of the Legislature. Dr. Brady, Mr. Clement, and Mr. Vanderbyl, who are in the present Parliament, have on all occasions exerted themselves in defence of the rights and privileges of practitioners of medicine, and there is no ground to suppose that the new candidates will not be equally active and sincere. It is true that in their addresses none of these gentlemen have dwelt particularly on their connexion with medicine; but, once elected, the *esprit de corps* cannot fail to influence their speeches and votes on all questions concerning the welfare of the profession. The only Conservative is Mr. Alfred Smee. We do not object to him on this ground, but we offer one suggestion to the medical electors of Rochester respecting this gentleman. Mr. Smee is the medical adviser of the Gresham Life Assurance Office, the directors of which, under, it is said, the advice of Mr. Smee, have stedfastly refused to acknowledge the right of medical referees to be remunerated for their reports of the health of proposed insurers in that office. Mr. Smee should be questioned on this point. If he refuse to do justice to those whose votes he solicits, he will not be a fitting representative of the interests of the medical practitioners of Rochester.

ABSINTHE SUISSE.

WE have analysed a sample of what we believe to have been the veritable Absinthe Suisse, in order to determine whether the analysis would throw any light upon the extraordinary effects produced by this compound on the human frame. These effects, as is well known, are high and even delicious excitements, followed by proportionate subsequent depression, with, ultimately, early decadence of the nervous and vital powers. The results of the analysis were as follows:—

Specific gravity, 890·2.

	Per cent.	Per 1000.
Alcohol, absolute	65·528 ...	655·28
Green essential oil	·202 ...	2·02
Sugar, gum, &c.	·354 ...	3·54
Mineral matter	·056 ...	·56

Two particulars of the analysis especially challenge observation and remark, and we believe that, taken together, they go far to explain the highly injurious and even deleterious action of absinthe upon the system. First, we observe that alcohol is present in very large amount—as large, in fact, as in the very strongest brandy. Second, we notice that it contains no less than 2 per 1000 grs. of essential oil. Now a great variety of essential oils exert the most marked effects on the system — take, for example, those of tea and coffee; and amongst those which exercise these effects we must certainly include the oil of absinthe. Now either the alcohol or the essential oil alone is capable of affecting powerfully the human organism, but when they are consumed together the body is subjected to the double power of two most potent agents, acting mainly on the nervous system. It is therefore far from surprising that it should give way under repeated doses of this but too seductive beverage. Of the injurious operation of an essential oil on the economy we have another example in oil of grain, or fusel oil.

The absinthe was specially tested for metals, such as copper and iron, as, had they been present in considerable amount, they also, in combination with essential oil and alcohol, would have explained in some degree the deleterious properties of extrait d'absinthe; traces of iron only, however, were to be found.

MEDICAL TREATMENT OF PARISH POOR.

A CORRESPONDENCE is now going on in *The Times* drawing attention to the practice pursued by parochial medical officers of prescribing for the sick poor on the report of the symptoms brought by the messenger "who goes for the doctor," and delivers the "order" for attendance. This practice is frequently continued for a considerable time, and the reason alleged is the impossibility of attending personally to the many cases of sick persons who apply, and the alleged fact that the medical man can in most cases know sufficiently what medicines are necessary from the report brought. It is justly observed that the messenger is generally utterly incapable of furnishing any information such as would be requisite to enable the practitioner to judge of the nature of the complaint, and "that the habit creates a feeling of distrust amongst the poor towards the medical men who practise it, and induces them to resort to the dispensaries and hospitals of neighbouring towns, where at least they can tell the doctor what their ailments are." The practice is, of course, utterly indefensible, but we fear there will be no hope of its abolition until the guardians find the drugs, and the medical officers are better paid. A systematic inspection of out-door medical relief is the preliminary remedy.

THE HEALTH OF THE EMPRESS CHARLOTTE.

WE understand that the mental derangement of the Empress Charlotte has reassumed an acute form; that she is now subject to attacks of furious mania; and, on the authority of her medical attendants, the "beginning of the end" is now so near that telegrams are passing daily between Vienna and Lacken, her place of confinement. "Uneasy lies the head that wears a crown" was true of the ill-starred Empress during her tenure of power; and, now that recovery seems more than doubtful, it is hardly humane to hope for the prolongation of a life which has had scarce a gleam of happiness for the last three years.

CHOLERA AND YELLOW FEVER IN THE UNITED STATES ARMY.

IN THE LANCET for Oct. 12th, 1867, (p. 469,) attention was directed to an official report on the prevalence of epidemic cholera in the United States Army in 1866. A recent report, now lying before us, continues the history of the cholera epidemic during 1867, and gives also an account of the extent to which yellow fever spread among the United States troops in that year. The report on the prevalence of cholera in 1866 was particularly instructive on account of the clear manner in which it was shown that the disease was principally disseminated from two or three infected points to the different stations by the movements of the troops. The carriage of the malady was tracked from point to point along the routes of bodies of men marching from stations where the epidemic had previously prevailed, or was prevailing at the time when the routes were taken. The further history of the epidemic in 1867 brings out prominently a like series of facts, "and especially confirms the opinions proved (in the previous report) with regard to the danger of distributing recruits or other bodies of troops from an infected point to other garrisons." An additional lesson gained by the experience of 1867 is thus stated: "The pos-

sibility of cholera reappearing in the following year at places visited by it during an epidemic, if the most stringent hygienic precautions are not adopted."

The report on yellow fever is of much interest from the illustrations it affords of the portability of the disease. The origin of the outbreak in the United States in 1867 is assigned to two foreign sources, from which the disease is believed, on good grounds, to have been imported. These sources were Vera Cruz, Mexico, and Havana, Cuba. From Mexico the malady "was brought to Indianola, and thence to other points of Texas. At all other points it seems to have been brought directly or indirectly from Havana; and it is worthy of remark that the cases here indicated as of Mexican origin were more fatal than those of Cuban origin, two out of every five cases of the former dying, while the mortality of the latter was but two out of seven. The ratio of deaths was 400 per 1000 cases for the first of these groups, 284 per 1000 for the second."

The data upon which the inferences and statements of the report are founded do not admit of being given with brevity. They must be consulted in detail in order to form a just appreciation of the importance of the report now before us and of that for 1866, as contributions to our knowledge of the etiology of cholera and yellow fever.

THE EPIDEMIC AT GUILDFORD.

AT the meeting of the Board of Guardians, it was stated that there were twenty-one cases of scarlet fever in the workhouse, and that the epidemic was confined principally to the children. The worst case was that of a servant girl from the White Lion Hotel. A proper system of disinfection was being carried out under the orders of the medical officer, and no new cases have occurred within the last week.

The Chairman said that although the borough of Guildford had overlooked the necessity of drainage, it was no reason why they, as guardians of the health of the workhouse, should neglect to take steps for the disposal of their own sewage. He suggested that it should be used upon the land.

Mr. Hull said that he had seen at Wellington College the sewage used for irrigating purposes, with the best results. The crops raised by it were remarkably good.

The Chairman observed that it was the duty of the Board to urge upon the authorities in Guildford to take proper steps for the drainage of the town. The expense they had incurred in paving the town was simply making the outside of the platter clean, while inside the original filth remained. (Laughter.)

The Clerk said that the expense of draining the borough would probably be £30,000, and it is said that no necessity has been shown for incurring that expense.

The Chairman.—When wells are turned into cesspools, and the very water-supply fouled thereby, I think there is a necessity to do something.

Mr. Turner.—There are very few wells in that state.

Mr. Ellis.—I think, now that Guildford has got into THE LANCET, something will have to be done.

SHOCKING CRUELTY ON THE HIGH SEAS.

THE adjective "diabolical" is too light a term for some of the disgusting barbarities that still happen in this nineteenth century. The captain (Scovill) and second mate (Carrol) of a ship—we blush to say a British ship—the *Lydia Thompson*, were sentenced last week, at the Liverpool assizes, the first to two years', the second to one year's imprisonment, for brutal ill-usage of four coloured seamen in the course of a voyage from Jamaica to Liverpool. The mate, Ansell Larkin, only escaped a similar condemnation by being previously sentenced to penal servitude for life for the manslaughter of a coloured seaman, Donald M'Donald. M'Donald was ill, and could not work; whereupon Larkin struck him with an iron belaying-pin. His body was fearfully disfigured, and he died in three or four days. A more ingeniously disgusting, if less fatal, cruelty was practised on the other negro youths. They were actually tied together by the penis, and whilst so tied were made to dance about by having sail needles thrust up the rectum! The lads bitterly described the pain of these proceedings and the sufferings which followed, especially the inability to micturate. What is to be said of the significance of such a group of chief officers being found on board a British ship? Had the barbarity been the conception of one man, the case would have been a little less shocking; but three such officers on board of one ship is a frightful discredit to our merchant navy. The details were so shocking as not to admit of publication through the ordinary channels. But the above particulars were actually established in the course of the trial.

CORONERSHIP OF SURREY.

MR. JOHN B. STEDMAN, of Brook House, Godalming, a well-known and respected member of our profession, has issued an address to the freeholders of Surrey, offering himself as a candidate for the vacant office of coroner. We should have been glad to see him go into the contest with more vigour and confidence. Whatever may be "the many interests which are arrayed against him," he is a most fit person for the office, has considerable local interest, and would, we believe, be assisted by the votes and influence of his brother practitioners throughout the district. Mr. La Fargue is also in the field; but of course one or other of the candidates must retire if the lawyer is to be defeated.

POSITION IN IMPENDING DEATH FROM CHLOROFORM.

EVERY suggestion bearing upon the treatment of patients who exhibit alarming symptoms during the administration of chloroform is worthy of note. Dr. Holmes, in a short communication to the *Chicago Medical Examiner*, states that in several instances in which symptoms of fatal syncope made their appearance, he found that placing the patient with the head downwards on an inclined plane of about 40° restored the pulse at the wrist, and the colour to the face. He mentions one case in particular, whose "aspect was most appalling—the face and hands were cold and wet, the features pinched, muscles of the face relaxed, lids half open, and corneæ turned upwards." The foot of the table had not been raised fifteen seconds (the tongue having been withdrawn) before the pulse was again felt, and the breathing re-established. Upon restoring the patient to the horizontal position, however, the alarming symptoms reappeared; but the change in position, by raising the foot of the table once more, was followed by relief. Dr. Holmes holds that by far the larger proportion of cases of death by chloroform arise from syncope, and this may be overcome by "causing a column of blood to press on the vessels of the brain;" and he gives the preference to the altered position, as suggested, above galvanism, artificial respiration, or other means generally adopted to restore the patient. The whole body must be inclined, not the head and shoulders alone.

DR. MILROY ON CHOLERA.

A PAPER in the *British and Foreign Medico-Chirurgical Review* for July, by Dr. Gavin Milroy, on the "Geography of Epidemic Cholera in 1866-67," shows how much we have yet to learn before we can explain all the erratic and migratory movements of epidemic cholera. It is chiefly valuable as showing the imperfection with which the particulars of outbreaks are observed even in places and countries where we should expect neither money nor pains to be spared to arrive at the facts on this most important question. For example, Dr. Milroy says: "No attempt to record the progress and course of the pestilence in America has, as far as I am aware, been made." The introduction of the disease to Stettin, without any discoverable traces of importation, is another illustration

in point. A very remarkable fact noticed by Dr. Milroy, is the comparative mildness of the morbific agency in the last epidemic along the whole east coast of England, notwithstanding constant intercourse with infected places in North Germany and Holland. Dr. Milroy says: "We seem to be as yet quite in the dark when we seek to account for the erratic or migratory movements of cholera. Human intercourse alone, or communication with infected places, whether *internally* between different parts of England, or *externally* with foreign countries, does not suffice to explain the irregular and capricious extension or dissemination of the poison."

MEDICAL OFFICERS OF THE BRISTOL UNION.

AN attempt upon the part of some of the more liberal guardians of the Bristol board to increase the salaries of their medical officers has not been successful. Mr. Randall proposed that the salary of Mr. James, of No. 1 district, should be increased from £100 to £165; that of Mr. Fendick, of district No. 2, from £100 to £120; and that of Mr. Cooper, of No. 3 district, from £80 to £90. Mr. Randall found that the remuneration of Mr. James was 7¼*d.* a case, that of Mr. Fendick 1*s.* 3¾*d.*, and that of Mr. Cooper 1*s.* 2*d.*; and he submitted that this could not be an equitable mode of remuneration. The resolution was seconded by Mr. Taylor. After some discussion, in which two amendments were proposed, the following was eventually carried by a majority of 22 to 12: "That, as the present arrangement of the medical districts is unsatisfactory to the guardians, no addition be made to the remuneration of the medical officers at present." This was a shabby way of getting rid of the question, but it is evident that some change must shortly be made.

THE LADIES' SANITARY ASSOCIATION.

THE Committee of the Ladies' Sanitary Association have just issued their tenth annual report. We are glad to note that the Association recognises in an especial manner the importance of providing food for the youngest of our growing population, and that its efforts in the matter of weekly dinners for the poor have been very successful. Another feature of sense displayed by the Committee is the plan of gathering together the children of districts whose atmosphere is in a continual state of pollution, and taking them *regularly* for fresh air and exercise to the various parks of London. Last season 539 parties, numbering 34,655, were taken for these little excursions. The managers of ragged schools have borne special testimony to the fact that the health and spirits of the children have been greatly improved by these rambles.

THE CROWN PRINCE OF BELGIUM.

THE young Duke of Brabant, according to the latest information which we have received, has somewhat improved in health. His illness began with inflammation of the heart, and was entirely uncomplicated by rheumatism. The fluid effused into the pericardium was at one time very considerable, but has now been almost completely reabsorbed. It is feared that there may remain some slight mischief about the valves of the great vessels running from the heart, but the physicians do not despair of his recovery. Dr. Walshe (in the absence of Sir William Jenner) was sent for; and his Royal Highness subsequently began somewhat to improve.

THE CATTLE EPIDEMIC IN AMERICA.

THE nature of the epidemic amongst the cattle in America which come from Texas, has given rise to much discussion, and the most opposite opinions have been expressed upon the point. Mr. Gamgee, who is in America, has pronounced the opinion that it is spread by the excreta of cattle which have fed on a particular plant, which does not affect the original eater of it. The drovers ascribe the disease to the attack of an insect called the carapato, which burrows in large numbers in the skin. A third hypothesis is that, in the transit of the beasts, fever has been generated. The disease, whatever it is, kills about half of those attacked by it. According to the latest accounts, it has diminished in New York.

UNVEILING OF THE STATUE OF LAENNEC.

THIS important ceremony took place at Quimper (Brittany), Laennec's birthplace, on the 15th instant. The concourse of people was very great, as the day coincided with a large annual gathering of the population of Brittany. Delegates from medical corporations and societies of the whole empire were present, and the solemn unveiling was carried out in a splendid and very tasteful manner. It should be remembered that the important body called the "Association of the Medical Men of France for Mutual Assistance and Support" was the originator of this tribute paid to the memory of an eminent physician and discoverer. The authorities of the locality took a prominent share in the ceremony; speeches were delivered by the prefect, the mayor, and eminent representatives of the Association, the Academy of Medicine, the Faculty, the relations and friends of Laennec, and by medical men of all countries. A grand dinner followed, at which the most cordial and appropriate toasts were eloquently given and warmly received.

THE ADULTERATION OF BREAD.

THE chief constable of Dorset has set a very good example in the issuing of the following notification pretty extensively in his district in regard to the abominable practice of adulterating bread:—

"*Adulterating Bread.*—Any baker or other person using any mixture or ingredient whatever in making bread, except flour or meal of wheat, barley, rye, oats, buckwheat, Indian corn, peas, beans, rice, or potatoes, with common salt, pure water, eggs, milk, barm, leaven, potato or other yeast, is liable to a penalty of £10.

"*Bread made of mixed meal or flour as above must be marked.* All bakers or other persons selling or exposing for sale bread made wholly or partially of peas, beans, or potatoes (except potato yeast), or any sort of corn or grain other than wheat, shall mark such bread with a large roman letter M; and failing to do so shall be liable, on conviction, to a penalty of 10*s.* for every pound of bread thus sold."

A PROJECT is on foot to create a new club in Dublin, under the title of the "Junior University;" and a circular has been addressed to university-men on the subject. It is said that there is a prospect of success.

THE next meeting of the British Association will be held at Exeter, with Professor Stokes as president. Invitations were also received, at Norwich, from Edinburgh, Liverpool, Bradford, and Brighton, for the Association to assemble at those places next year.

THE Library of the Obstetrical Society will be closed from the 1st to the 14th of September inclusive.

THE healthiest of all the years in the Holborn district, since 1860, is that of 1867, as appears from Dr. Gibbon's annual report of the sanitary state of that part of London. During the twelvemonth, 1126 deaths were registered, giving a corrected mortality of 24·63 per 1000, or a decrease of 1·29 on the rate of 1866. As regards the ages of those who died, in 44·6 per cent. they were those of children under five years of age; a decrease, however, of 2 per cent. is noticed amongst infants under two years of age. It is satisfactory to learn that the number of uncertified deaths has also diminished. Small-

pox was prevalent; 161 cases were treated by the Poor-law medical officers. Successful vaccination cases, however, rose from 745 in 1866, to 1069 during last year. Tubercular disease carried off 309 persons, accounting for 25·3 per cent. of the deaths. Dr. Gibbon's attention has been specially directed to the application of the Workshops Regulation Act to the case of millinery establishments.

WE remind our readers that the Congress of Naval Medicine and Hygiene at Havre is fixed for the 28th of September, and will last until the 3rd of October. Such of our professional brethren as wish to take part in this gathering should send in their names to the Committee of the Congress, at the International Maritime Exhibition, Havre. Medals and rewards will be distributed to the authors of the best papers read during the meetings of the Congress.

THE winter session at Queen's College, Birmingham, will be opened by an address from Lord Lyttleton; and the prizes and certificates of honour will be distributed by the Bishop of Worcester, the visitor of the College. This inauguration of a new era in the history of the Queen's College, occurring as it will during the meeting of the Social Science Association, and under such favourable auspices, will form a noteworthy feature in the Social Science gathering.

THE irrigation system of sewerage is now in operation at Warwick. A farm of 109 acres has been rented, and the necessary machinery erected, at a cost of about £8000. The Town Council are already congratulating themselves on the success of the scheme. At Rugeley and Banbury the same system of disposing of the sewage has been adopted, it is affirmed, with success.

THE CATASTROPHE AT ABERGELE.

IN the excitement attendant upon the awful catastrophe of last week some expressions have found place in the descriptions published by the daily journals which do not appear to be exactly warranted by the circumstances when these are examined critically. The idea that the terrible loss of life which occurred was due to "explosion" is not well founded. The paraffin oil with which the run-away trucks were loaded is not, at least in the liquid form, an explosive material. It is highly combustible, and when ignited, as it doubtless was by the fire of the engine with which it came in contact, it would burn with terrible rapidity. But had the material been really explosive, instead of a few carriages with their inmates being consumed, the whole train must have been shattered to pieces. Various explanations have been hazarded in regard to the absence of cries for help from the carriages, and the fact that no effort seems to have been made by any one passenger to escape from the burning vehicles. It has been suggested by some that the inmates were stunned by the concussion; by others, that they were instantaneously rendered insensible by the anæsthetic properties of the vapour from the oil. We do not think that the circumstances can be altogether explained in either of these ways. In even very violent collisions it has never been the case that *all* the inmates of the first few carriages have been so stunned by the concussion as to be incapable of an effort at self-preservation, and it has often happened that, the whole force having been spent in breaking up carriages, as occurred in this instance, the passengers have escaped with very little injury. There must, then, have been other causes in operation. The passengers here were grouped into two portions—those who were consumed to ashes, and those who escaped comparatively unhurt. We must, therefore, necessarily look upon the presence of the paraffin oil as the essential cause of the exceptional horrors which marked this railway accident. It has been suggested that the unhappy victims were thrown at the outset into a state of anæsthesia. Of the anæsthetic properties of the vapour of paraffin oil, there can be no doubt. The oil is a highly complex and somewhat variable mixture of volatile hydrocarbons, and though this mixture has probably never been directly tested, some of its constituents undoubtedly belong to the class of anæsthetics. Amylene, for example, is a well recognised member of the class, and amylene is a very common, if not a constant, constituent of the oil. So far, then, probabilities appear in favour of the hypothesis; but without venturing to dogmatise upon so difficult a subject, we are compelled to think that these probabilities diminish on a closer examination. A careful consideration of the circumstances appears to us to indicate that the ignition of the highly inflammable fluid must have followed almost instantly upon the collision, and consequently that the unfortunate creatures must have been surrounded by a sheet of flame long before anæsthesia could possibly have been produced. What they then breathed was not the mere vapour of the volatile hydrocarbons, but a torrent of black smoke, charged perhaps to some extent with hydrocarbon vapour, but deadly from its temperature, and from the products of combustion of which it mainly consisted. Carbonic acid, and the still more poisonous carbonic oxide, are more likely to have been the noxious agents than the vapours of the oil. They must have been present in far larger quantity, and are much more intense and rapid in their effects. It was probably asphyxia, in fine, not anæsthesia, which cut short the sufferings of the victims. But this is not all. The cause of death, and the explanation of the horrible stillness which characterised the inmates of the leading carriages, may be reasonably ascribed, we think, in some cases, to the shock which the sudden exposure of the entire body to flame would inevitably occasion. The impression upon the nervous centres thus produced would be a powerful agent in rapidly extinguishing vitality. And there is nothing inconsistent with recorded experience in this view. In our journal of Jan. 17th, 1863, Dr. Buzzard described minutely the appearances presented by six children who had been taken out dead from the top room of a house which had been burned down. They had all been found lying in bed in a posture of repose, except one, who was on the floor. The condition of the bodies showed unmistakably that the extensive burns upon them had been inflicted during life, and signs of suffocation were absent. Yet they had made, with one doubtful exception, no effort to escape, and their countenances bore no sign of a struggle for existence. On such a point as the degree of consciousness which would exist under the circumstances of violent death of this description, it is impossible to speak with absolute confidence, but on the whole we believe that a human body suddenly wrapped in flames under the conditions which obtained at Abergele would have its vitality extinguished with extreme rapidity. And this small amount of comfort is all that we can extract from an event which is sickening to dwell upon.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING HELD AT NORWICH FROM 19TH TO 25TH AUGUST.

THE meeting of the Association in this fine old city, although not equal to its immediate predecessors in point of numbers, was fully up to the mark in good, solid, scientific work. The number of many distinguished men from abroad was greater than usual, owing to the circumstance of the meeting of the International Congress of Prehistoric Archæology being held at the same time as that of the Association. This was perhaps unfortunate, as it tended to a division in the interest of the subjects brought before the two bodies.

We give an analysis of the proceedings in those sections in which subjects immediately related to medical science were discussed, viz., in the Chemical and Biological Sections, respectively B and D. The presidents and secretaries of either were as follows :—

Section B (Chemical Science) : Professor Frankland, F.R.S., president ; Professor W. A. Miller, D.C.L., F.R.S., and Warren De La Rue, Esq., F.R.S., vice-presidents ; Dr. Brown, F.R.S.E., F.C.S., Dr. Russell, F.C.S., and F. Sutton, Esq., F.C.S., secretaries.

Section D (Biology) : Rev. J. M. Berkeley, M.A., F.R.S., president ; W. H. Flower, Esq., F.R.S., and E. B. Taylor, Esq., F.R.S., vice-presidents ; and Dr. M. Foster, H. L. Stainton, Esq., F.R.S., the Rev. H. B. Tristram, M.A., F.R.S., and Dr. E. Percival Wright, F.L.S., secretaries.

Mr. W. H. FLOWER read a paper "On the Homologies and Notation of the Teeth of Mammalia." This was an endeavour to ascertain how much of the generally adopted system of the homologies and notation of the teeth of the mammalia, a system mainly owing to the researches of Professor Owen, stands the test of renewed investigations, how much seems doubtful and requires further examination before it can be received into the common stock of scientific knowledge, or how much (if any) is at actual variance with scientific facts. Certain generalisations as to the prevailing number of each kind of teeth in different groups of animals were sustained, but deviations were shown from some of the rules laid down, such as that when the pre-molars fall short of the typical number, the absent ones are from the forepart of the series. The general inference was that although in the main the system of notation of the mammalian teeth proposed by Professor Owen was a great advance upon any one previously advocated, we must hesitate before adopting it as final and complete in all its details, and need not relax in our endeavour to discover some more certain method of determination.

Professor HUXLEY pointed out the singular speculative problems suggested by the paper just read. He would not discuss the remarkable views put forward as to the nature of the successional teeth. They had all been in the habit of looking upon the milk teeth as first teeth, and permanent teeth as successional teeth. Mr. Flower asked them to look upon what were called the permanent teeth as the first form, and the milk teeth as a something superadded in the higher growths of the mammalia. This was a view of profound general significance, and if it should turn out to be correct, would oblige them to modify a great many of the ideas at present entertained.

Professor ROLLESTON, in reference to whales and seals, said, looking to their teeth they were very like, but they were very nearly in relation to the external medium in which they both lived ; consequently, the teeth closely correspond with that which was most in relation with the medium in which they lived,—namely, their skin. In the human species they saw the greatest alteration in teeth, in correspondence with the skin; and he cited the instance of a man found in Ava by Mr. Craufurd, in 1817, who was covered not only over the face, but over the whole of his body, with a thick coating of hair, and that man had no back teeth at all.

Dr. B. W. RICHARDSON read a paper "On some Effects of extreme Cold on Nervous Action." This was a continuation of his experiments in relation to the freezing the centres of the nervous system. He explained that frozen frogs do not respire during insensibility. This was proved by the fact that they could be placed in nitrogen, hydrogen, and carbonic acid gas, and they could be recovered at the precise moment of solution from the frozen state. Freezing the brain necessarily produced a gradual slowness of the circulation, and even entire cessation of the heart's action. Under the influence of extreme cold on the brain and the spinal cord, the extreme effect of such poisons as strychnine could for a time be entirely suspended. This raised a hope that in such diseases as tetanus a new and successful mode of treatment might be gradually evolved. The rigidity of death, the author said, was quickened by heat, and prevented by cold. Lastly, he referred to the effects of freezing and rapidly thawing the skin of certain regions of the body, especially in birds, which in them caused extreme irregularity of movement, and other signs of nervous disturbance.

Dean Torry, Dr. Rolleston, Dr. Dickson, Prof. Taylor, Prof. Clelland, and Dr. Anstie took part in the discussion.

"The Physiology of Pain" formed the subject of a communication by Dr. ROLLESTON, who said it was a common mistake to suppose that pain was an exaltation and excitement of function, for it might also be occasioned by a lowering of functional activity, brought about mainly by starvation or shock. Starvation was produced by a casting off of the supply to the tissues from the bloodvessels, which, by an excessive action of the vaso-motor nerves, contracted so forcibly as to cause the current to cease. The pain from shock was produced by a sudden impulse without the intervention of bloodvessels, though not without the intervention of the the tubes containing nerve matter. A number of facts bearing on these theories were given. A brief discussion followed, in which Dr. Crisp, Dr. Bennett, Dr. Anstie, Professor Humphry, Professor Clelland, and Dr. Richardson took part.

Professor BENNETT read a "Report on the Action of Mercury on the Secretion of Bile," in which he reiterated the statements made at the meeting of the British Medical Association at Oxford,—viz., that in whatever doses mercury may be administered, it fails to influence the secretion of the bile ; in fact, it diminishes it.

An animated discussion followed, in which Dr. CRISP called in question the accuracy of the Committee's facts, because the dog was not at all like man in the general formation of his alimentary canal. In their wild state dogs are carnivorous ; in domestication they become omnivorous. He agreed with Mr. Flower that the pig would be a better animal for experiment than the dog. He thought we were bound to analyse with great care the nature of these experiments, and should not hurriedly abandon our long-entertained views regarding mercury.

Dr. RICHARDSON thought the report a model one, and accepted the facts as proved ; but he thought the subject not yet exhausted. He still had much respect for the opinions of our forefathers : they must have found mercury valuable, or they would not have used it.

Professor GROSS, of Philadelphia, said that, whilst acknowledging the accuracy of the facts, he was yet not disposed to ignore the action of mercury. An experiment on a dog was one thing, but a careful observation on the human frame performed at the bedside was another and wholly different one. He referred to the value of mercury in the diseases of the Southern States.

Dr. Inman, Dr. Gamgee, Professor Clelland, and others, continued the discussion.

Dr. ANSTIE read a paper "On the Effects of Alcohol on the Pulse, as tested by the Sphygmograph." The remarkable elevation of arterial tension which occurs when alcohol acts favourably, and the diminution of tension which occurs when the reverse is the case, were described, and an explanation attempted. Dr. Anstie leaned to the belief that the sympathetic was principally acted on.

In the discussion which followed, Dr. BÉHIER, Professor of Clinical Medicine in the Faculty of Paris, while confirming the facts, suggested an explanation by the hypothesis of an action of alcohol chiefly on the heart through the vagus.

Mr. Flower, Dr. M. Foster, and Dr. Bateman, took part in the discussion, and Professor Béhier exhibited a new modification of the sphygmograph, including an important arrangement for graduating the pressure of the spring. Dr. Béhier and Dr. Anstie both stated, in answer to questions, that they considered that alcohol itself, and not the other ingredients of wine, brandy, &c., was the beneficial agent in the acute stage of pyrexia.

An interesting paper "On the Zoological Aspect of the Game Laws" was read by Mr. ALFRED NEWTON. The subject of the destruction of animals was rarely discussed in the public prints without great exaggeration, and the most one-sided views were constantly presented. The public should feel, he thought, that they had an interest in the protection of wild animals, especially during the season of reproduction. He believed that the abundance of game had but little to do with the scarcity of birds of prey, and could declare that in some foreign countries the existence of numerous birds of prey was a pledge of the plenteousness of game. Owls were undoubtedly the game-preserver's best friends. His most serious foe was the rat, and the owl consumed more rats and mice than any other description of food. The author referred to the enormous demand for the feathers of the white gull by the modern fashion of ladies' hat plumes. He finally advocated the legislative appointment of a "close time," to be proclaimed by the local authorities, during which the mere carrying of a gun should be an offence. This plan had been adopted in several countries.

A very animated discussion ensued, in which, amongst others, Dr. Crisp, Dr. Grierson, and the Rev. Mr. Tristram took part.

A paper was read by Mr. A. D. BARTLETT "On the Crested

or Top-knotted Turkey," brought from Zanzibar. Its chief peculiarity was a large crest of evenly arranged feathers, not unlike a modern lady's chignon. The bird had been stated to be extinct.

Dr. BLANC, one of the late Abyssinian captives, read a paper "On the Native Races of Abyssinia," in the course of which he stated that the people were naturally drunkards and gluttons; they were abstemious by necessity; and their festivals were but low and coarse orgies. With them cleanliness is a shame, debauchery no disgrace.

Of other subjects of interest upon which papers were read in the physiological and other sections may be mentioned: "Report on the Investigation of Animal Substances with the Spectroscope," by Mr. E. Ray Lankester; "The Physiological Action of the Methyl Series," by Dr. Richardson; "On the Passage of Radiant Heat through Liquids," by Mr. W. F. Barrett; "The Distribution of the principal Timber Trees in India," by Dr. Cleghorn; and "On the Wellingtonia Gigantea, with Remarks on its Form and Rate of Growth as compared with the Cedrus Libani," by Mr. John Hogg. In the last paper the author alluded to many of the peculiarities of this remarkable tree, and described several groves of these monarchs of the forest, containing in all about 1250 trees. He thought the real age of one of these mammoths to be about 1300 years, instead of 3000, as had been asserted by other observers.

This paper was followed by an extemporaneous address "On the Progress of Salmon Cultivation in England," by Mr. Frank Buckland. He stated that the measures already adopted had led to a considerable increase in the quantity of salmon brought into the London market during the last few years.

Dr. ROLLESTON made a communication to the Physiological Department "On the Pectorales Muscles," and another "On Sixteen Eskimo Crania," which had been handed to him by Mr. Whymper, who obtained them in Greenland. All have the prognathic form, and every one was dolichocephalic.

Mr. FLOWER confirmed the accuracy of the author's observations.

Dr. BROCA, of Paris, thought that the dolichocephalic characters were not always well marked in Eskimo skulls.

A short communication "On Flukes from the Indian Elephant" was read by Dr. COBBOLD, who made some remarks on their affinities. A new species of distoma was exhibited, and its anatomy described, and the points in which it differed from other forms.

Dr. CRISP contributed a paper "On the Skeleton of a Fossil Whale, recently found on the East Coast of Suffolk," and gave a minute account of its discovery in the Chillesford clays. It was 31 feet long.

Mr. GODWEN AUSTIN, president of the Geological section, remarked that the discovery was important as indicative of a deep-water condition.

Dr. RICHARDSON presented a report "On the Physiological Action of the Methyl Series." The research had four objects: 1. To bring into actual practice some of the substances the physiological action of which the author had ascertained, and on which he had previously reported. 2. To examine more carefully the mode of action of those bodies of the series (anæsthetics) which produce sleep and insensibility to pain. 3. To investigate the action of some other bodies of the series which have not yet been studied by physiologists. 4. To test the antidotal influence of some of the substances against the action of certain alkaloidal poisons. All these were specially brought under review.

In the discussion which followed this report, and a paper by Dr. CRUM BROWN "On the Connexion between Chemical Constitution and Physiological Activity," a general feeling was expressed that the researches of these gentlemen should be continued under the auspices of the Association.

Another communication by Dr. RICHARDSON was "On the Transmission of Light through Animal Bodies." He exhibited a lamp which he had constructed for transmitting light through the structures of the animal body. He believed that the idea that this could be effected was given in Priestley's work on Electricity; that great chemist had observed, on passing a discharge of a Leyden battery through his finger, that the structure seemed to present luminosity; but the operation was painful. A suggestion of Dr. Macintosh last year at Dundee, had been acted on by Dr. Richardson, who had observed the motion of the heart and of respiration by direct ocular demonstration while these organs were under the influence of various bodies belonging to the ethyl and methyl series. Dr. Richardson had so far extended the principle that he was enabled to transmit light through various tissues of the bodies of large animals. The particular details of all these interesting and elaborate experiments he described. In a child, the bones could be seen in the arm and wrist. The movements and outline of the heart could also be seen in the chest.

The interest of the medical philosophers culminated in the three following papers:—"The Physiology of Language," by Dr. Hughlings Jackson; "On the Seat of the Faculty of Articulate Language," by Professor Paul Broca, of Paris; and "On the Power of Utterance in respect of its Cerebral Bearings and Causes," by Mr. R. Dunn. In reality these three papers were upon Aphasia, and Professor Broca had discovered the cause in 1861. Two facts he noticed: one was that when speech was gone by aphasia, there was always some lesion of the brain; sometimes there were conditions that leave no trace of disease in the brain, but this does leave some; the other fact was that this alteration or lesion was almost always in the left hemisphere of the brain. He thought at first it was always in the left side, but it is now known to occur in the right side, perhaps once in fifty cases. It is therefore exceptional. A third fact was that the lesion of the brain involved almost invariably part of the third convolution. He had given numerous proofs of it; first the traumatic, wherein he and others had observed the destruction of this part of the brain, and language was destroyed. This class of cases was more domonstrable than that from disease. He had seen three cases of traumatic injury on the right side, and speech continued till death. Traumatic cases therefore prove that the left, and not the right, side affects speech, when the part described is involved. Of pathological cases the lesion is almost constant on the left side; exceptions are very rare, and are of two kinds. Sometimes the lesion is on the right side, and sometimes it is neither on the right nor left, but *very near* to the third convolution on the left. He had seen it in the groove near the third convolution. In summing up, he stated that the seat of articulate language is at the posterior part of the third convolution; this convolution of the right and the left side possesses the same function; but why aphasia was produced by lesions on the left side, and not on the right, was a question still unsolved.

A very animated discussion took place.

Dr. BATEMAN, of Norwich, had collected 75 observations of aphasia, and in 27 there were autopsies. In 13 there were lesions elsewhere than in the anterior lobes; in 5 none at all. There were 22 against, and 5 only in favour of Professor Broca's theory.

Professor HUGHES BENNETT, in some lengthy remarks, expressed his belief that the left side of the brain received more blood than the right, which might possibly explain why the left side exerted such an influence upon the faculty of speech.

Sir DUNCAN GIBB thought it worthy of mention, that in a large number of cases of functional aphonia he had found the left side of the larynx at fault, probably, to the best of his recollection, to the extent of 75 per cent. In aphasia the organs of speech were not involved, as stated by Professor Bennett.

Dr. HUMPHRY, of Cambridge, was opposed to the localisation of organs in the brain; he was in favour of unity, and the structure of the brain favoured that view. He confessed he was prejudiced against the theory of Professor Broca.

Mr. Gilson and Professor Voit also made some remarks.

It must be stated that Professor Broca, in reply, combated with great ability the objections to his theory, and explained away the cases referred to by Dr. Bateman.

The subject is still open to further investigation.

Dr. CRISP read a paper "On the Alimentary Tube of the Tasmanian Wolf," and another "On the Visceral Anatomy of the Gorilla." A third paper by him was "On the Relative Weight, Form, and Colour of the Eye in Vertebrate Animals." This was illustrated by the eyes themselves of more than 400 birds.

Professor BROCA and Sir D. GIBB made some observations on the third paper.

Interesting papers were read by Sir John Bowring "On the Moral and Pecuniary Results of Prison Labour;" by Mr. F. S. Corrance, M.P., "On the Social Condition of the Labouring Classes;" by the Rev. Canon Girdlestone "On the Condition of the Agricultural Labourer, specially in the West of England;" and by the Rev. Professor Willis "On the Arrangements employed for the Distribution of Water to Towns and Dwellings in the Middle Ages."

Mr. Bridgeman communicated a paper on "Electrolysis in the Mouth;" Mr. Pengelly, "On the Condition of some of the Bones in Kent's Cavern, Torquay;" and Mr. H. Stevenson, "On the Extinction of the Great Bustard in Norfolk and Suffolk." A paper of much physiological interest was read by

Prof. Huxley, "On some Organisms which live at the bottom of the North Atlantic, in depths of from 6000 to 15000 feet."

Miss BECKER read a paper, before a crowded audience, "On some supposed Differences in the Minds of Men and Women, with regard to Educational Necessities." In the course of her observations she remarked that if women were equally capable with men of receiving scientific instruction, it seemed to be the duty of scientific societies to take care that equal facilities were afforded them of receiving it. She concluded as follows:—"Is it not time that scientific men should try to make the world understand that ignorance of scientific truths may lead men and women to commit fatal errors in matters deeply affecting the welfare of themselves and those about them? But the best safeguard against the hidden dangers that beset the lives of men, and the surest means of their advancement in civilisation and happiness, consist in the discovery of the laws under which they live and move and have their being, and the diffusion of a knowledge of those laws amongst all classes and both sexes of the community."

There were many other subjects of interest brought before the meeting, of which our space prevents a notice. One of the last, but certainly not the least important, was a paper by Dr. Crisp "On the Statistics of Pulmonary Consumption in 623 Districts of England and Wales."

At the concluding general meeting, on the 26th, it was announced that the next meeting would take place at Exeter.

CHINCHONA CULTIVATION IN JAMAICA.

THE measures which have recently been adopted to establish the cultivation of chinchona plants in Jamaica appear to be highly promising, and there is now little reason to doubt that they will result in adding a very important item to the resources of the island. A valuable report was recently made to the Government on the subject for the financial year ending September 30th, 1867, by Mr. Robert Thomson, the botanist of the island. And the following extract will show how matters are progressing:—

"I was authorised by Government, in 1867, to commence its propagation (chinchona) at Cold Spring, where about twenty-four of the plants were thriving. Accordingly, in January, 1866, I commenced operations in a small propagating pit. The propagation here was necessarily on a small scale. In the beginning of 1867 the Government decided to cultivate the chinchona on a scale commensurate with its importance—that is, the formation of extensive Government plantations of all the valuable species. To accomplish this, the great object has been extensive propagation, and the selection of suitable sites ranging from 3500 to 6500 feet above the sea, embracing the essential conditions for the various species. These conditions could only be acquired near the centre of the Blue Mountain range; hence the proximity of our present nursery establishment, which was commenced in March last with 800 plants which were removed from Cold Spring. Dr. Hooker has largely supplied me with chinchona seeds, from which the propagation has been exclusively effected, this mode being sufficient to occupy our whole attention. The number of plants thus propagated is now 25,000 of the following species:—C. calisaya (the most important of all), C. succirubra, C. officinalis, C. micrantha, and C. paludiana, all of which will be ready for planting out in a few months. This number, at 500 per acre, will plant 50 acres; and this is the extent of plantations estimated to be formed in the current financial year. For the subsequent extension of the plantations the present stock can be multiplied to any extent; and it is proposed, in pursuance of the system adopted in India, to offer plants for sale to private enterprise. For this purpose it is probable that from 5000 to 10,000 will be ready by the end of 1868. It is not likely, however, that coffee-planters and others having suitable land will undertake this culture until the Government experiment is successful; but as soon as this is ascertained, the facilities afforded by the Government undertaking will no doubt be taken advantage of, and there is every reason to believe that this will become one of the most important products of the island.

"The mountain climate of Jamaica possesses, there is good ground for stating, a closer affinity to the native habitat of the chinchona, at least of several of the species, than any other British colony: thus, the affinity of vegetation, more continuous moisture, and partly the close approximation of latitude.

"Extensive tracts of land eminently adapted for this culture exist on the Blue Mountain and St. Andrew ranges; the former attains a height of about 8000 feet, its average height is perhaps not less than 5000 feet. The culminating point of the latter is some 5100 feet. Coffee is the only product worthy of notice that has been cultivated on these ranges, the upper limit of the profitable cultivation of which is 4000 feet. Of the Blue Mountain range coffee has been confined almost entirely to the centre and southern slopes, this being more accessible to Kingston; east and west of this the range, with its ramified ridges and spurs in a state of nature, constitute perhaps several hundred square miles between 3000 and 6000 feet elevation. To the St. Andrew range a comparatively larger area has been occupied by coffee towards the east; but its western prolongation is in most part untouched.

"Of course those species requiring the medium elevation of 3000 to 5000 feet will be the principal objects of culture here. The best height for C. succirubra, with one or two others, is from 3000 to 4000 feet; for C. calisaya, with others, 4000 to 5000 feet; and for C. officinalis, &c., 5500 to 6500 feet.

"The different species are of very different value, and of which one or two have been considered worthless,—e. g., C. paludiana. In reply to my inquiry respecting this species, Dr. Hooker writes:—"C. paludiana is yielding in India an excellent percentage of quinine, and I would advise you to give all kinds an *extensive* trial, as some species that yield little in America have yielded a large amount in India."

The total number of plants in the island at present is as follows:—C. calisaya, 1500; C. succirubra, 17,000; C. officinalis, 5000; C. micrantha, 1500; C. paludiana, 3000; total, 25,000.

Mr. Thomson has recently issued full directions for the culture of C. succirubra, the formation of plantations, and the like. The annual return after the sixth or seventh year is estimated at £40 per acre.

THE CITY POLICE FORCE.

THE arduous duties imposed, day and night, upon the men composing the City police, lend special interest to the annual reports of Mr. Borlase Childs, the surgeon-in-chief, as to the sanitary state and general *physique* of the force under his care. From a return which we have received, it appears that during the twelvemonth ending June 23rd, 1868, the amount of sickness and mortality was somewhat less than the year before. Out of a strength of 697 men, 423 were admitted into hospital, 5 died, and 11·64 were constantly on the sick-list; or, in the ratio per 1000, as regards deaths 7·17, admissions 602·57, and daily sick 16·70. In the previous year the death-rate was 8·75, that of admissions 617·54, and that of the daily sick 17·88. In noticing recently the remarkably healthy state of the Custom House officers, we pointed to their freedom from phthisis within the twelvemonth to which Dr. Dickson's report referred. Mr. Borlase Childs is equally fortunate in being able to state that during the year 1866-7 no case of phthisis came under his notice for treatment. There is one matter that strikes us forcibly in the return he has given, and that is the greater prevalence of sickness amongst the single as compared with the married men. The admissions for sickness in the two classes were 934·67 per 1000 in the former, and 469·88 in the latter; the death-rates respectively being 2 and 20·2 per 1000. Again, in regard to those who are on day and those who are on night duty a difference is observable in the proportion of 512·60 and 573·64 as regards admissions per 1000, and 6·81 and 7·69 as regards the deaths per 1000; the extra exposure of the men in the one case fully accounting for the slight excess. The 1st division, located in Moor-lane, is the healthiest; the 6th, in Bishopsgate-street, the most sickly. Four men were invalided during the year. A comparative statement appears in the returns, showing the reduction in sickness and mortality in the force since the sick have been admitted to hospital. Before the hospital was built, the death-rate was 17·29, the sickness 1003·45, the daily sick 27, per 1000; since its erection the proportions have been 7·96, 605·59, and 16·84.

In deaths alone this signifies an annual decrease of 9·33 per 1000. The death-rate of the metropolitan police force is 5·11 per 1000, but the sickness-rate is 775·21, and the daily sick 39·86; so that as regards general healthiness the City force has the advantage of it, and also, in every respect, of the troops in the United Kingdom. Mr. Borlase Childs' report is highly creditable to himself and the City authorities.

THE TREATMENT OF CHILDREN IN ST. PANCRAS WORKHOUSE.

AN inquest has been held by Dr. Lankester on the body of a child three years old, who died in the infirmary of St. Pancras Workhouse. The child was admitted on the 10th of August, and it was found some days afterwards that it was suffering from an injury to the jaw, caused by falling out of bed. All the front teeth had been knocked out, and a week afterwards gangrene of the face set in, which terminated fatally on the third day.

The child had been left in charge of a deaf, unpaid, pauper nurse, and had fallen out of bed. The attention of one of the medical officers was directed to the case, but, according to the evidence, he seemed to have forgotten it; it was, however, ordered to the infirmary the same evening. On the following day it was placed on extra diet of milk and rice pudding; and on the 12th it was ordered an egg and a gill of wine. It was elicited that there were often thirty-four children in the ward in which the deceased was kept, and that, on special occasions, there had been as many as forty-two; and the coroner stated that the space was many thousands of cubic feet below the lowest admissible quantity. In answer to a direct question, Dr. Gibson said that the atmosphere of the room was unfit for children in such a delicate state as the deceased; and that gangrene came on through living in overcrowded rooms. The coroner remarked that such overcrowding ought not to occur again; and the jury, after returning a verdict of "Accidental death," appended a unanimous resolution, drawing the attention of the board of guardians to the overcrowding, and recommending that children unable to walk should be placed in cribs, and not in ordinary beds.

Correspondence.

"Audi alteram partem."

HYSTERICAL VOMITING.

To the Editor of THE LANCET.

SIR,—I have read with great interest Dr. Hyde Salter's able lecture on Hysterical Vomiting, as also the correspondence to which it has given rise. I had hoped that this rather intricate clinical point would have been so cleared up by your correspondents as to render it unnecessary for me to enter the lists. But I find that such is not the case, and that severe hysterical vomiting is left where Dr. Hyde Salter leaves it at the end of his lecture: a rather mysterious pathological condition, often thoroughly intractable to all known therapeutic agencies—incurable, in a word. Now to me such a conclusion is not a step in advance in pathology and therapeutics, but a retrograde step; so I must beg for a little space to support the position taken by Dr. Tilt, and to recall to the profession facts which I considered thoroughly established.

Severe, constant vomiting in a young, delicate female may exist entirely unconnected with any uterine symptom—that is, with any morbid symptom referable to the uterine organs, or to their physiological play, menstruation, &c.; but in that case it is not, as Dr. De Berdt Hovell justly remarks, hysterical vomiting at all—as far as that term implies uterine connexion, — but more properly neurosis of the stomach, if there is no actual disease of that organ. Or the vomiting may exist in connexion with (or be greatly aggravated by the advent of) decided pathological uterine or ovarian symptoms, as in the case detailed at length by Dr. Hyde Salter. In my experience such vomiting—severe, more or less constant, intractable to medicinal treatment, rising and falling with the greater or less intensity of the uterine and ovarian symptoms, with the presence or absence of menstrual phenomena—is all but invariably connected with uterine or ovarian mischief, generally of an inflammatory character.

As the pathologist who first drew the attention of the profession, more than twenty years ago, to the important clinical fact that the virgin female, from the first dawn of menstruation, is liable to severe acute and chronic inflammation of the uterine organs, my attention has long been riveted on all the symptoms connected with these morbid conditions. None, I may safely say, is more conclusive, in the immense majority of cases, as to the existence of such uterine or ovarian disease, than vomiting as described by Dr. Hyde Salter—the hysterical vomiting of authors. Its presence in connexion with uterine or ovarian symptoms, and its intractability to ordinary treatment, constitute a sufficient reason for careful examination of the uterine organs. This examination, however, is not an easy matter. Repulsive to the feelings of all parties, it is surrounded by physical difficulties. Unless the hymen has become easily dilatable, as sometimes happens, from long maceration in leucorrhœal discharge and other causes, it may be necessary to divide it thoroughly before the finger can be used; afterwards the division must be allowed to heal under treatment before the smallest speculum can be applied. Even then it may prove no easy matter to bring the cervix well into view if it is displaced, or if it lies naturally in a diagonal direction towards the left ilium, as not unfrequently occurs. Many medical men shrink from the examination altogether; others make an imperfect digital or imperfect specular examination, which throws no real light on the case, and then pronounce themselves satisfied as to the absence of disease on such incomplete data.

As an illustration of the above fact, I may mention a case that occurred two or three weeks ago. An unmarried lady, aged thirty-five, was brought to me with a whole train of symptoms pointing to the uterus as the *fons et origo mali*. On my proposing an examination, I was told that she had been examined a fortnight before by a very competent authority, whose opinion in uterine pathology I myself hold in just respect. I was fairly puzzled. If there was no uterine mischief, I was as much at sea as those who had preceded me, and had really nothing to propose but the meaningless round of sedatives and tonics already given. I explained, however, that although I myself was quite satisfied as to the opinion she had had, if she wanted my individual opinion she must allow me to again examine her; just as when a chest case comes to a consulting physician, however satisfied he may be with previous opinions, he must examine again himself if called upon to give an opinion. The proposal was assented to, but with some hesitation, for both doctor and patient considered it all but unnecessary under the circumstances. I soon, however, changed my opinion. I found many physical difficulties, and after ten minutes' efforts had to give up without having seen the cervix. I then took a week to prepare the patient by rest, hip-baths, astringent and emollient injections; and prepared myself, by the previous failure, as to instruments, position, light, I managed to make a thoroughly satisfactory examination. What was the result? In this patient, pronounced free from uterine mischief a few days before, I found the uterus enlarged and retroverted on the rectum, an abundant sanious discharge issuing from the os, and excoriation of both lips of the cervix, extending into the cervical canal. My impression is that there is a small fibrous growth in the posterior wall of the uterus, which has led to enlargement and retroversion, accompanied by secondary inflammation of the cervical and perhaps uterine mucous membrane.

Now I would ask whether in Dr. Hyde Salter's case, in which the uterine symptoms were so very decided and so unmistakable, the uterine organs were examined with this care and minuteness by Dr. Parsons? Was the examination a specular one, or merely a digital one? In the latter case the examination proved nothing; for inflammation of the cervical mucous membrane, with or without excoriation or ulceration, may exist, be at the root of all the mischief, and yet be unrecognisable to the most educated finger. The eye alone will detect it, and the eye *must* be called to our assistance, as a very slight amount of such mischief may fire the whole train of so-called hysterical symptoms.

A clinical fact of such importance should certainly not be overlooked in the history of intractable vomiting, with or without hysteria. It ought to be well understood that the uterine symptoms enumerated by Dr. Hyde Salter as present in his case—such as pain in the loins, above the pubes, and at the

pudendum, exaggerated before, during, and after menstruation, heat, pricking, and congestion of the vulva, &c.—are all symptoms which point, not merely to functional derangement, but to positive local disease; generally inflammation of the vagina and cervix, or ovaries, with or without excoriation or ulceration of the cervix uteri.

I must repeat that I do not for one moment mean to assert that uncontrollable vomiting, with or without hysteria, may not be idiopathic, the result of mere morbid states of the nervous system, and exist without uterine mischief; but I do mean to assert that, in a very large proportion of the more intractable cases in young females, uterine or ovarian lesions are at the root of the mischief. When these lesions are brought to light by examination, treated, and cured, the intractability of the case ceases, and the patient gets well. "Sublatâ causâ, attollitur effectus." When more actively engaged in consulting practice than I now am, I was constantly seeing such cases in consultation with other medical men, owing to my writings on these subjects. I have thus very many times had the satisfaction of restoring to health patients suffering as Dr. Hyde Salter's patient suffered, in whom, previous to the discovery of the uterine lesion, everything had been tried in vain, and therapeutics at last abandoned in despair as hopeless and useless.

I was not, however, always so fortunate, and one sad case I recollect well, for it made an indelible impression on my memory. A well-made, beautiful girl of nineteen was brought up to me from the country, by the wish of her medical attendant, for my opinion. Her case was the very counterpart of the one Dr. Hyde Salter narrates, except that the vomiting had not existed previous to menstruation, and that in addition the lower extremities had been sometime paralysed as regards movement, not as regards sensation. The uterine symptoms were so self-evident, the vomiting so severe, and the positive danger to life so decided, that I did not hesitate a moment to make the necessary examination. I found vulvitis, vaginitis, and cervical metritis, with extensive ulceration. I at once commenced local treatment, at first with some relief, but it was too late. The paraplegia became greater, and other forms of hysterical paralysis supervened. She became unable to swallow solids, then fluids, and gradually sank. A few days before she died she recovered the use of her lower limbs completely, which satisfactorily proved that the paralysis was of the hysterical character. I do not doubt but that, had the real nature of the complaint been discovered at an earlier period of its existence, her life might have been saved.

I have seen many other cases of incipient hemiplegia of hysterical convulsions bordering on epilepsy, and of other serious forms of hysteria in young females, evidently the result of similar uterine lesions. What undeniably proves that such was the case is the fact that, incurable before these lesions were discovered, the malady gave way, more or less rapidly, once they were ascertained and treated. I am satisfied that I have thus saved many valuable lives by throwing false delicacy aside and acting.

In conclusion, I beg to assure Dr. Hyde Salter that I fully appreciate the clinical value of his remarks on this subject, and to repeat that I have, like himself, seen severe and continued vomiting in young females which I could not refer to tangible uterine or ovarian disease. But in such instances there has been an absence of the exaggerated uterine symptoms described as latterly present in his patient. If the cervix uteri and uterus were really sound in this case, I should look for some obscure morbid ovarian condition. We all know, from the dead-room, how difficult it often is to recognise ovarian disease in the earlier stages of its existence.

I remain, Sir, your obedient servant,

Grosvenor-street, Aug. 18th, 1868. J. HENRY BENNET, M.D.

LITHOTRITY.

To the Editor of THE LANCET.

SIR,—To the sentimental reflections and personal remarks on myself of which Mr. Shillitoe's letter chiefly consists, I need not reply one word. For the purpose of ascertaining a fact such observations are useless.

The fact then is, that lithotrity cannot be described in words alone, as any practical man knows well enough; for which reason, at the lecture in question, I operated on two patients *in the lecture room*, with the express object of demonstrating the proceeding. Nevertheless, it is this of which Mr. Shillitoe attempts to judge, not having seen it, and declining to do so; asserting that he is content with what he was taught some years ago. By all means be it so. But, first, I repeat emphatically that my operation is essentially different from any that has preceded it. The instrument is made expressly for a different manipulation, which is apparent to anyone who sees what it is capable of accomplishing as compared with the performance of the French instrument. I fearlessly leave this question to those of my brethren, but especially to the numerous American and foreign surgeons, who have seen the operation both in my hands and performed in Paris, and who can therefore form a judgment; some of whom may see these lines, and feel inclined to express it. And I may add that my late lamented friend, Civiale, himself expressed his admiration of the lithotrite, and ordered Messrs. Weiss to make it for him not many months before his death; while in Paris, as well as in London, it is now largely made, and sold in place of the French instrument.

Secondly, I deny that I have the slightest wish to evade the professed object of Mr. Shillitoe's letter,—viz., to blame me for omitting in one of my lectures to state whether or no Mr. Coulson was the first person to employ in England the French method of performing lithotrity. Now I beg to observe that in the brief limits allotted to the lecture, the utmost I could do was to indicate very roughly some of the most important improvements in the operation; more than this would have opened a field far too wide.

Finally, I do not understand on what ground Mr. Shillitoe undertakes to call me to account for a matter which can only concern Mr. Coulson and me. If Mr. Coulson himself really believes I have done him any injustice (a matter of extreme regret if I have), and will state in what it consists, I shall, if in error, most readily do my best to repair it. But having made a statement of fact relative to my operation, capable of being determined only by practical demonstration, such as I am constantly affording in public, and incapable of being solved by any words whatever, I must be excused if I decline to notice further anything that Mr. Shillitoe may add on this subject.

I am, Sir, your obedient servant,

Wimpole-street, August 23rd, 1868. HENRY THOMPSON.

To the Editor of THE LANCET.

SIR,—Mr. Buxton Shillitoe claims for Mr. Coulson the introduction of an improvement in the operation of lithotrity, which Sir H. Thompson denies in language not over courteous. Allow me to call the attention of both gentlemen to the following passage in a Lettsomian lecture by Sir H. Thompson, published in THE LANCET of March 22nd, 1862:—"To our distinguished President (Mr. Coulson) is due the merit, I believe, of first advocating in this country the method of Civiale, and of first recognising its larger capabilities as compared with the older method."

It should be remembered that this lecture was delivered before the Medical Society of London, of which Mr. Coulson was then President; but it may be noted that in republishing these lectures in the form of a work called "Practical Lithotomy and Lithotrity," at page 179, Sir H. Thompson has altered the foregoing sentence into "Having tried both methods myself, I have no hesitation in preferring the former."

Putting aside, however, Mr. Coulson's claims to priority, it has always appeared to me that in his writings Sir H. Thompson has studiously ignored the fact that Sir William Fergusson has throughout his career taught and practised the method which Sir H. Thompson has always called Civiale's. It is so much pleasanter to call a thing after a deceased Frenchman than after a living and practising London surgeon, that I am not surprised at a man of Sir H. Thompson's knowledge of the world adopting the plan; but the following quotation from Fergusson's "Practical Surgery," p. 803, 3rd edit., 1852, must sufficiently settle the question of priority:—"When the curve is fairly within the cavity, he should cautiously feel for the stone as in the process of sounding already described; having touched it, he should open the blades by drawing the inner one towards him, and pushing the outer a little onwards, until he supposes the gap sufficient to include the calculus, when he should turn their points, and dip the whole end of the instrument in the supposed direction of the stone, push the blades towards each other, and thus grasp the object; this being done, he should move the instrument slightly, by way of making sure that part of the mucous membrane is not included," &c.

Not being an "old friend and former fellow-student of Sir

H. Thompson's," and not wishing to participate in the amenities he vouchsafes to those who are, I shall be content to remain,

Yours, &c.,

August 19th, 1868. CHIRURGUS.

P.S.—I am sorry that no response has yet been made to my appeal to Sir H. Thompson (THE LANCET, February 1st), to publish the results of his medio-bilateral lithotomies.

SANITARY CONDITION OF GUILDFORD.

To the Editor of THE LANCET.

SIR,—In your report upon the sanitary state of the town of Guildford, under the heading of "general mortality," you remark, with reference to some statistics I sent you—"As he had previously informed us that the deaths in the whole registration district were in each year considerably higher than the above proportion, it seems strange that the extra mortality should have occurred in the suburban parts, and not in the comparatively overcrowded and unhealthy town." It is necessary that I should explain this apparent anomaly. *Beyond* the *confines of the town*, but within the limits of the registration district, there are two public institutions—the Union Workhouse and the Royal Surrey County Hospital. The former receives the sick, aged, infirm, and children, from the twenty-two parishes, with an estimated population of 30,000 inhabitants, constituting the Guildford Union. The infirmary of the Workhouse has upon an average something over fifty inmates, many of them suffering from fatal diseases, sent in from the surrounding district merely to be nursed till they die. This circumstance, added to the ordinary mortality amongst the aged, infirm people, and children, creates a high death-rate, the average annual deaths during the five years in question being 37. Of the Surrey County Hospital, situated at about four hundred yards from any part of the town, the male wards are within the borough, the female beyond it, the building being cut in two by the imaginary boundary line. During the last year 8 deaths occurred in this building within the borough, and 6 beyond its limits. In the previous year the proportion was about in the same ratio. As the inmates of these two establishments come from distant places, they cannot be considered as part of the normal population either of the town or suburban registration district, although they materially help to swell the death-rate of each. Thus 37 deaths have been contributed to each of the five years in the series by the Workhouse to the suburban parts of the registration district, and 43 in the two last years of it by the Workhouse and Surrey County Hospital together. The deduction of these numbers from the gross deaths in the suburban parts of the registration district will account fairly for the apparent discrepancy to which you refer, and will, *pro tanto*, diminish the percentage of deaths both in the town itself and in the entire registration district.

I am, Sir, your obedient servant,

Guildford, Aug. 24th, 1868. RICHARD EAGER.

*** We accept Mr. Eager's explanation of the statements he made with respect to the general mortality of the inhabitants of Guildford, with this single observation: that as the borough comprises one-third of the Guildford Union, it is reasonable to infer that one-third of the deaths in the Workhouse belong really to the town. Mr. Eager has not explained the statement that the mortality during the present year is not greater than usual, although manifestly swelled by 22 deaths from scarlatina. Does not this prove that epidemics at Guildford are the rule, and not the exception?—ED. L.

SEA-BATHING.

To the Editor of THE LANCET.

SIR,—In your journal of the 8th instant is a code of excellent rules drawn up for the Royal Humane Society by Dr. Sieveking and Dr. Christian. These rules, I presume, apply more especially to bathers in fresh water. I think they sum up very correctly the conclusions of experienced swimmers. If they are attended to, bathing will do good; if they are contravened, bathing will do harm.

But my immediate object in addressing you is to call attention to the very defective arrangements for sea-bathing provided at our English watering-places. A machine, more likely to be wet and dirty than clean, and a towel or two, appear to constitute all that is necessary to the minds of our "proprietors." On sandy beaches the machine is commonly run out just far enough to enable the bather to walk into water that will cover his knees, rarely far enough to enable him to plunge. The consequence is, that ladies, children, and all who cannot swim, dabble about with their bodies out of the water, and get out chilled, shivering, with teeth chattering, blue lips, and general horripilation; and there is no sort of provision to aid in counteracting the species of collapse by restoring the circulation to the surface. Such bathing as this is positively injurious—even dangerous to delicate persons. The thing most wanted is a bucket of warm fresh water, say at 90° F., to stand in, and wash away the salt and sand whilst rubbing and drying the body. This is not only a luxury, but a safeguard, especially to ladies and children. With it, bathing even in comparatively cold weather becomes useful and agreeable. On sandy shores the water is often charged with organic matter, and this, added to the hygrometric property of the saline ingredients, keeps the feet sticky, clammy, and uncomfortable for the rest of the day. It is an immense comfort to get rid of this.

Is there any reason why this warm water should not be provided? It is an essential element at all the "Etablissements des Bains" in France. Of course a small charge would be expected; but I venture to say that a good bathing-place properly equipped with this and other conveniences would soon prove remunerative. At present, medical men are obliged to forbid many of their patients from bathing. If they knew of a place answering to medical requirements, that place would not lack encouragement or support.

I am, Sir, your obedient servant,

Finsbury-square, Aug. 1868. ROBERT BARNES, M.D.

LEAD COLIC.

To the Editor of THE LANCET.

SIR,—As a member of the Clinical Society, and one most anxious to see its object as a therapeutic society, for which it was established, fully carried out, I as carefully as I can look through your columns from time to time, and endeavour to find out and analyse the modes of treating disease.

THE LANCET of the 15th inst. gives some interesting cases of lead poisoning from Middlesex Hospital. The treatment adopted in each case, though differing somewhat, has, with the exception of Case 4, one feature in common. Each had opium as a part of the treatment, and got well. But so also did Case No. 4, though it got no opium.

To be brief, I gather from the report, first, that iodide of potassium did no good, but rather harm; secondly, that castor oil, whether it did good or not, was not fairly tried,—it had opium and liquor potassæ mixed with it; thirdly, and most prominent, that opium, whenever fully administered, did good. Such is my own limited experience.

With all earnestness, then, I would take the liberty to suggest that opium, pure and simple, and without any adjuvant, be fairly tried, and particularly in hospitals, where experiments of this kind can be more faithfully carried out; and let the result be made known.

I am, Sir, yours &c.,

August 19th, 1868. DIOGENES.

Analytical Records.

BONTHRON'S DIABETIC BISCUITS.

IT was pointed out long since by Dr. Hassall that even the most carefully prepared bran biscuits abound in starch, and that they are most unsuitable for the use of the great majority of patients labouring under diabetes. Dr. Hassall has found them to contain from 40 to 50 per cent. of starch, and that it is impossible to free the bran from the starchy element by any number of washings and pressings. As he has shown, the only really effectual method of removing the starch is by the action of the diastase derived from a solution of malt. This converts the insoluble farinaceous matter into the soluble glucose, which is easily washed out of the bran by means of water.

The material thus obtained is absolutely free from the smallest trace of starch or other matter convertible into glucose. Unfortunately, however, it binds only with great difficulty into a biscuit, and requires for this purpose to be very carefully treated and prepared.

In proof of the large quantity of starch contained in the bran biscuits specially prepared for the use of the diabetic, it is only necessary to moisten a small fragment of one with tincture of iodine, when it immediately turns of a bluish-black colour.

It is obvious, on examination, that the diabetic biscuit of Mr. Bonthron is a gluten and not a bran biscuit, and it is certainly the most palateable gluten biscuit we have ever tasted; it is remarkably light, and very nutritious But, from the iodine test, it is apparent that it contains a large per-centage of starchy matter—so much, indeed, as to render it unsuitable for many cases of diabetes. Touched with a solution of iodine, the biscuit becomes of a dense, bluish, thick colour.

ARNETT'S QUININE ALE.

The combination of a tonic with a stimulant is certainly a favourite one, and there is no doubt that in some cases it is useful and beneficial. We have an example of this union in the case of the far-famed bitter beer, in which the alcohol of the malt is associated with the bitter principle of the hop; a second example is afforded in the case of quinine wine. But it has occurred to Messrs. Arnett and Co. that the bitter alkaloid of bark, quinine, might be added with advantage to a malt beverage; and hence we have Arnett's Quinine Ale. We find that, as stated, one imperial pint of the ale contains a grain of quinine.

SCARLETT AND LYNN'S BEEF-TEA.

We have subjected a sample of this preparation to examination, and append the results of the analysis; and, for the sake of comparison, we give also analyses of Liebig's extract and of ordinary clear beef-tea.

Scarlett and Lynn's Beef-tea.

Water	54·14	per cent.
Organic alcoholic extractive matter ...	5·91	,,
Organic extractive insoluble in alcohol	35·95	,,
Mineral matter	4·00	,,
Albumen	A small quantity.	
Fat	A very small quantity.	

Nitrogen, 6·99 grs., equal to 38·26 grs. per cent. of nitrogenous matter.

Liebig's Extract.

Water	18·20	per cent.
Organic alcoholic extractive matter ...	37·60	,,
Matter insoluble in alcohol	22·95	,,
Ash	21·25	,,

Nitrogen, 8·42, equal to 54·32 albuminous.

Clear Beef-tea.

(Composition of one pint.)

Gelatine	57·5,	equal to	35·5	per cent.
Organic alcoholic extractive	63·8	,,	39·0	,,
Ash	41·0	,,	25·0	,,
	162·3			

It will be observed that the proportion of matter soluble in alcohol is small in Scarlett and Lynn's beef-tea as compared with Liebig's extract; that the beef-tea of these makers contains a moderate amount of gelatine, which is nearly absent in the extract, but which abounds in the ordinary but well made clear beef-tea. The beef-tea, however, of Messrs. Scarlett and Lynn we found to be in a good state of preparation and of pleasant flavour, and it will doubtless prove of service in all cases in which ordinary beef-tea is required. It admits of being prepared for use in the course of a very few minutes.

CHOCOLAT DE LA COMPAGNIE COLONIALE.

The superiority of the chocolates of French manufacture over most of the English preparations was a few years since very great. This arose mainly from the very large quantity of starch, sugar, and even mineral colouring, introduced by some English manufacturers into their articles. The difference, although now not nearly so great as formerly, is still considerable, and preference has yet often to be given to the foreign manufacture. We have recently received and examined a variety of the chocolates of the Compagnie Coloniale of Paris, and we found them to consist solely of cocoa of superior quality, and sugar. Altogether, it was evident that much care had been bestowed on their preparation, and that they were of very superior quality and purity.

THE PEPSINE BISCUITS OF MESSRS. BEWLEY, HAMILTON, AND CO.

Many persons object to take pepsine in the forms in which it is usually prescribed—namely, in the liquid state in combination with wine, and in the solid form of pill or powder. In order to obviate the objection thus entertained, it has occurred to Messrs. Bewley to combine the pepsine with the constituents of an ordinary biscuit. Each biscuit is stated to contain five grains of pepsine, and in flavour is not distinguishable from any other pleasant and well-made similar article. It is well known that pepsine is an exceedingly delicate substance, and that its properties are very easily destroyed—the fear we entertain in the present case is lest the heat employed in baking the biscuits destroys the activity of the digestive principle, pepsine. With a view to put this question to the test, we have made the following experiments:—One of the biscuits was mashed up with warm water at a temperature of 98° Fahr., and kept at that heat for some hours; another biscuit, free from pepsine, was treated in the same manner for the sake of comparison. A second pepsine biscuit was broken up in warm water like the first, and little strips of meat immersed in the mixture. In none of the cases were the results of a very marked character, nor could we perceive any difference in the condition of the biscuits or meat in the several cases.

PRESERVED MILK, PREPARED BY THE ANGLO-SWISS CONDENSED MILK COMPANY.

On board ship, and wherever men and women are congregated together in numbers remote from pasture land, an adequate supply of milk becomes a matter of difficulty, if not impossibility. Until recently, sailors and travellers on board ship have had to put up with some very unsatisfactory compounds which have been made to do duty for that much-abused but most valuable of all liquid articles of food, milk. Of late years, however, the method of preserving milk in very tolerable condition has been discovered. This consists in part of depriving the milk, at a low temperature, of the greater part of its water, which forms by far the largest portion, and in adding white sugar in powder. A sample of the preserved milk prepared by the Anglo-Swiss Condensed Milk Company furnished, on analysis, the following results:—

	Per cent.
Water	24·32
Sugar of milk	14·62
Cane sugar	37·18
Fat	9·87
Albuminous matter, including casein	10·98
Mineral matter	2·62
	99·59

Containing 1·69 gr. of nitrogen.

Moreover we found that as regards preservation and taste the condition of this preserved milk was satisfactory, and that it mixed freely with tea or coffee.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 20th inst.:—

Cartwright, John Augustus Tatam, Spalding.
Hiron, William Nathaniel, Chipping Campden.
Lardner, Frederick Boultbee, Gillingham, Kent.
Morgan, Frederick, Culmstock, Devon.
Widdas, Daniel, York.

The following gentlemen also on the same day passed their first examination:—

Robert Argles, and John Knowles, King's College; Eugene John Hart, Guy's Hospital.

ARMY MEDICAL DEPARTMENT.—The Director-General presents his compliments to the Editor of THE LANCET, and begs to enclose for insertion a list of gentlemen who competed successfully for appointments as assistant-surgeons in H.M.'s

British Medical Service at the examination held at Chelsea on the 10th of August, 1868.

	No. of Marks.		No. of Marks.
Chatterton, J.	2310	Sharpe, W.	1725
Stokes, A. H.	2160	Bennett, R. D.	1695
Corry, G.	2035	Maunsell, H. E.	1670
Saunderson, W. H.	1950	Thornby, J. G.	1655
Crean, J. J.	1915	Luke, A. W.	1630
Scanlon, J.	1900	Carroll, T. E.	1600
Adye, Curran F. G.	1875	Davy, F. A.	1585
Faris, T.	1835	White, H. B.	1560
Triphook, G. R.	1780	Bradford, R. M.	1530
Stannard, H.	1745	Maxwell, E. C.	1530
Webb, J. H.	1730		

VACCINATION is to be made compulsory at Natal.

THE late Mr. Naylor, of Twickenham, bequeathed £500 to the Convalescent Home, and £500 to the dispensary at Newcastle.

THE Lord Chancellor has appointed D. Devereux, L.R.C.P. Lond., M.R.C.S. Eng., a Justice of the Peace for the Borough of Tewkesbury.

NORTH WALES LUNATIC ASYLUM.—The attendants of the above institution presented J. C. Morris, Esq., the medical officer, with a handsome gold albert chain on his leaving the asylum.

OSCAR BECKER, the lunatic, who attempted the life of the King of Prussia, at Baden-Baden, in 1861, died at Alexandria on the 16th of July last.

UNDER the will of the late E. Allenby, Esq., of Regent-street, the following bequests have been made:—Charing-cross Hospital, £500; Cancer Hospital, £500; Rupture Society, £200; the Consumption Hospital, £150.

BLUES IN PARIS. — Madame Alexandrine Bris passed her examination as Bachelor of Science at the Faculty of Sciences of Paris a few days ago. She had so many marks that the President of the Examining Board offered her congratulations. It is said that the lady is about to enter as a student at the Faculty of Medicine.

PHYSICIANS VERSUS SURGEONS.—At the Venereal Hospital of Paris one of the surgeoncies is to be abolished, and a physician is to take the appointment. Venereal diseases lie in some degree between physic and surgery. The former seems in the ascendant in the French capital.—At the Lying-in Hospital a similar alteration has taken place.

SURGEON J. BALFOUR COCKBURN, Royal Engineers, and principal medical officer at Fort Pitt Hospital, Chatham, having completed his period of service at head-quarters, Chatham, has received orders to proceed by the next mail to Gibraltar, to take medical charge of the Royal Engineers at that station. He will be relieved at Chatham by Surgeon T. W. Fox, M.B.

EAST LONDON CHILDREN'S HOSPITAL.—This thriving special institution for children at the East-end of London began its work with eight beds in January last. Within a few months the number had increased to twenty-six, and the applications for admission have shown how much work there is to be done by the little hospital. We learn from the first annual report that during the last six months 90 in-patients have been received, and 2300 out-patients attended to. The freehold of the hospital has been generously purchased for £2000 by Mr. and Mrs. Heckford. The institution had our approval at the outset of its career, and we can only repeat that it is fully entitled to the support of the public.

AS Mr. Hains, surgeon, of Totnes, was attending the bedside of a patient at Harberton, the portion of the flooring on which he was standing suddenly gave way, precipitating him into the room beneath. Happily, beyond being shaken and receiving some slight bruises, Mr. Hains was not much the worse. Mr. Hains is a gentleman of unusual weight and rotundity.

THE MAURITIUS. — Recent communications that have reached England confirm the fact that every man in the detachment of the Royal Artillery and Engineers has been ill with fever. Twenty-five per cent. of the 32nd Regiment, and two-thirds of the 86th Regiment, have been invalided from the same cause.

LISTER'S METHOD IN GERMANY.—Dr. Bohm stated, in June last, before the Medical Society of Vienna, that he believed the good effects of this method were mostly owing to occlusion. He expressed himself highly pleased with the results he obtained in some cases; but he found those results exactly the same when using chalksoil without carbolic acid. Hence, the advantages of the method Dr. Bohm attributed mainly to the exclusion of air. Professor Dittel, who has largely experimented with the method, remarked that he had found it very useful in compound fractures; and if the carbolic acid is proved to be an unnecessary addition, the application of the method would become less expensive.

NECROSIS OF THE SKULL, LASTING FORTY-TWO YEARS. M. Gayet brought lately before the Society of Medical Sciences of Lyons, the case of a man, aged forty-six, who had died of exhaustion. At four years of age the patient had fallen into the fire and injured his head. Necrosis of the skull was the result, and the frontal and two parietal bones, and a portion of the occipital, gradually crumbled away. General development had, however, taken place; the intellect was pretty clear, and though speech was a little embarrassed, no actual aphasia had ensued. The length of the process is certainly remarkable.

THE summer meeting of the Western Medical Club was held on the 31st ult., at Kilmarnock. Dr. McLeod occupied the chair at the dinner. Amongst those present were Drs. Paxton, Weir, Lyon, Smith, Thomson, Newman, McCall Anderson, Mather, Allan, Mason, Haldane, Dobbie, Nilson, Graham, Gouch, Alexander, and McLaren.

THE YELLOW FEVER IN PERU.—From a letter inserted in the *Allg. Central Zeitung* of July 25th, it appears that the scourge is now raging less severely. The official reports state that from February to May of this year, no less than 4486 individuals died in Lima, not including English and German colonists. In Callao, with a population of 15,000, no less than 3000 fell victims to the fever. It is asserted that this epidemic differs in some respects from the ordinary yellow fever, or "vomito negro" of the West Indies.

THE unsatisfactory nature of coroners' inquests on steam-boiler explosions formed the subject of a discussion at the meeting of the British Association. It was argued that these accidents are clearly due to "neglect," to allowed thinness of the boiler plates, that the jury and coroner were quite incompetent to determine their true cause, and that it is advisable that coroners should in future be empowered to order that special investigations be undertaken by competent engineers, so as to enlighten the Court upon doubtful points, and thus enable them to fix more responsibility upon the owners of boilers.

A PEST-NEST. — A coroner's inquest was recently held at Newtown touching the deaths of a woman and three children from English cholera. The insanitary condition of the place in which they lived was "shocking." A family of seven lived up a "yard" in a house consisting of two apartments, a bedroom and a kitchen, and slept together in one room, "sometimes with the window a bit open, but that was seldom." There are eight other houses in the yard, the sole ventilation of which consists in a narrow covered passage. There is one privy and one pump for the accommodation of the inhabitants of the houses, which are all described as being overcrowded in a similar manner, and the cesspool is situated at the distance of about a yard from the pump. The coroner communicated with the Home Office upon the subject.

THE MUZZLING OF DOGS.—It appears that the recently-imposed silly and cruel edict against unmuzzled dogs is to be enforced beyond the period at which every sensible and humane person had hoped it would have become a dead letter. We are wholly unable to understand the grounds upon which Sir Richard Mayne justifies his official sanction of this step, and we condemn the want of humanity which has dictated his decision in the matter.

BRIDLINGTON DISPENSARY.—The following is a list of the medical staff of the above newly-formed dispensary,—viz., E. S. Brett, M.R.C.S. Eng., C. F. Hutchinson, M.D. St. And., A. Allison, M.D. St. And., G. D. Nelson, M.D. St. And., John Allison, L.F.P.S. Glasg., and C. W. Mann, M.R.C.S. Eng.

MEDICAL SELF-DENIAL: MUNICIPAL GRATITUDE.—The Italian Parliament has granted £16 a year to the widows of such medical men, who, having been called upon by the municipalities to treat cholera patients, fell victims to the

disease. With two children, £24; with four, £32; and £40 with more than four children; the latter, in all cases, being under age. An effort was made by M. Comin to extend the right of pension to the fathers or mothers of the medical victims, but the proposal was rejected. The talented editor of *L'Imparziale* lashes, in no measured terms, the meanness of the allowances, and calls upon Italian professional men, when requested by the State to take charge of patients during an epidemic, to make their own terms. The same editor takes the opportunity of descanting on the shabby remuneration obtained by medical men in the kingdom of Italy, and adds, by way of analogy, that more liberality exists in France and England, as in the former country every visit is paid for by a napoleon, and in the latter by a guinea.

MELANCHOLY DEATH OF A PHYSICIAN.—Dr. Keller, a Russian physician, who had lately been transferred from Dorpat to Tekaterinoslaw, was making his evening round in the hospital. He had just paid much attention to a patient lying in a dangerous state; and, whilst turning to the next bed, he was struck on the head by the patient he had just left, with the metal board on which is fixed the bed card, which the infuriated man had taken down. Dr. Keller suffered so serious a cerebral lesion that he died seven hours afterwards. The assassin, who was moribund, had exhausted his remaining convulsive strength for the dreadful deed, and fell back dead upon his bed.—*Med. Central Zeit.* (Berlin), July 11th, 1868.

Obituary.

WILLIAM McKENZIE, M.D.
(OF GLASGOW.)

WE regret to announce the death of this gentleman, an event by which the medical profession has lost one of its brightest ornaments, and suffering humanity a benefactor not easily to be replaced. Dr. McKenzie was born in Glasgow, in 1791. Educated at the Grammar School and University of his native city, he subsequently went to the Continent, where he zealously prosecuted medical studies in the Parisian, Viennese, and other noted schools. Returning to this country in 1817, he commenced practice as an oculist in London. Some two years later he removed to Glasgow, and entered on the career of eminent usefulness which terminated only with his death. In addition to his labours as a practitioner, he early assumed the position of a public teacher, delivering courses of lectures on anatomy, materia medica, and medical jurisprudence in the Andersonian University and elsewhere. In 1824, Dr. McKenzie, in conjunction with Dr. George Monteith, established the Glasgow Eye Infirmary. To the success which has attended that useful institution he largely contributed, and down to the time of his death he was connected with it in the capacity of consulting surgeon. More than forty years ago Dr. McKenzie was appointed to lecture on the eye in connexion with the Glasgow University, the funds of the Waltonian lectureship being appropriated for his remuneration. This appointment he has held ever since, his lectures forming a most valuable adjunct to the professorial prelections of the medical school. In 1830, Dr. McKenzie published his great work on "Diseases of the Eye," which went through four British editions, and has been translated into French and German. A supplement to the last French edition, published in 1865, contained annotations by the author and others, bringing the work quite abreast of the state of science at that date. In 1841, the indefatigable oculist published a book on "The Physiology of Vision." For two years he edited the *Glasgow Medical Journal*, and he was a frequent contributor to that and other medical periodicals. As an acknowledgment of his professional eminence, Dr. McKenzie was appointed surgeon-oculist to the Queen in Scotland. He had also the honour of being elected a member of various Continental scientific societies. As a practitioner he was sought after by patients from all parts of the country, and from abroad. Though advanced in years, Dr. McKenzie had not, down almost to the day of his death, withdrawn himself from professional duty. On the day preceding his death, although feeling slightly unwell, he was at his consulting rooms as usual. In the course of the following night he was suddenly seized with severe illness, which resulted fatally on the evening of the 30th ult.

THOMAS ELD BAKER, ESQ., M.R.C.S.

IN 1811 Mr. Baker entered as student at St. George's Hospital under the auspices of Sir Everard Home, and attended the lectures of Brodie, Pearson, Joshua Brookes, and others. In 1813 he obtained the diploma of the Royal College of Surgeons, and the year following an appointment to Bengal. He served two campaigns in the Nepaul War, was Garrison Surgeon at Buxar in 1819, and Surgeon to the 10th Light Cavalry in 1825. By his benevolent and considerate tolerance of their prejudices (a rare qualification in those days), he won the entire confidence and regard of the natives wherever his influence extended. Amongst other literary productions, he wrote "An Essay on the Art of Preserving Health in India," which was circulated by authority. He returned home in the year 1838, and retired from professional life, devoting himself thenceforth, both publicly and privately, with his characteristic philanthropy, energy, and untiring industry, to the welfare of his fellow-men, becoming a magistrate for Middlesex, Treasurer of the Royal Humane Society, and holding various offices in the parish of St. Pancras. It was whilst in the discharge of his magisterial duties during the Fenian disturbances in December last, that Mr. Baker's seriously declining state of health became manifest to himself and his medical advisers, his malady assuming the form of climacteric disease, under which he gradually sank, apparently without any great suffering.

MEDICAL APPOINTMENTS.

BRERETON, Wm. W., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Oughterard Dispensary District and the Workhouse of the Oughterard Union, Co. Galway, vice R. Willis, M.R.C.S.E., deceased.

BYRNE, J. P., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Aughrim Dispensary District of the Rathdrum Union, Co. Wicklow, and Medical Officer to the Aughrim Constabulary, vice J. Kearney, M.R.C.S.E., deceased.

FAIRBANK, F. R., M.D., has been appointed Medical Officer and Public Vaccinator for No. 11 or Lynton District of the Barnstaple Union, Devon, vice T. A. Roberts, M.R.C.S.E., resigned.

MORGAN, F., M.R.C.S.E., has been appointed Medical Officer for the Parishes of Culmstock, Hemyock, and Clayhidon, in the Wellington Union, Somerset shire, vice F. D. W. Wheatoe, M.R.C.S., deceased.

OWENS, Dr. E. M., has been appointed Medical Officer and Public Vaccinator to the Workhouse and District No. 5 of the Maidstone Union, vice P. H. Stokoe, M.D., B.A., resigned.

RUSSELL, Dr., F.C.S., has been appointed Lecturer on Chemistry and Practical Chemistry at St. Mary's Hospital Medical College, vice Dr. Matthiessen, resigned.

Births, Marriages, and Deaths.

BIRTHS.

FRANCIS.—On the 25th inst., the wife of Dr. Wm. Francis, of Richmond, Surrey, of a daughter.

HUMBLE.—On the 16th of June, at Patagones, South America, the wife of the Rev. Dr. G. A. Humble, M.D., M.R.C.P., Medical Missionary, of a son.

MADDEN.—On the 19th inst., at Westbourne-street, Hyde-park-gardens, the wife of Henry R. Madden, M.D., of a son.

MAURICE.—On the 13th inst., at Marlborough, the wife of J. B. Maurice, M.D., of a son.

NAUGHTIN.—On the 15th inst., at Baker-street, Portman-square, the wife of W. Naughtin, M.R.C.S.E., of a daughter.

RHODES.—On the 19th inst., at Weymouth, the wife of Chas. Rhodes, M.D., of a son.

RIDING.—On the 20th inst., at Euston-square, the wife of W. S. Riding, M.D., of a son.

SPROULLE.—On the 16th inst., at Moville, Co. Donegal, the wife of Thos. W. Sproulle, M.D., of a daughter.

TANNER.—On the 18th inst., at Henrietta-street, Cavendish-square, the wife of Thos. Hawkes Tanner, M.D., of a son.

TURNER.—On the 8th inst., at Ryde, Isle of Wight, the wife of W. F. J. Turner, L.R.C.P.Ed., of a daughter.

MARRIAGES.

HOLDEN—STERRY.—On the 18th inst., at Neuchatel, L. Holden, F.R.C.S.E., to Frances, daughter of the late Wasey Sterry, Esq.

MOFFITT—GORDON.—On the 18th inst., at St. Luke's, Southampton, Andrew Moffitt, L.R.C.S.I., Staff Assistant-Surgeon Army, to Helen Clarke, daughter of the late Lieut.-General H. W. Gordon, Colonel Commandant 3rd Brigade Royal Artillery.

DEATHS.

ARDAGH.—On the 7th inst., at Barrie, Ontario, Canada, John R. Ardagh, M.D., aged 57.

INGRAM.—On the 20th inst., at Steyning, Sussex, Charles P. Ingram, M.D., aged 35.

JONES.—On the 18th inst., at Brynyffynon, Dolgelley, Jane Annyl, the beloved daughter of Harriette Sophia and John E. Jones, M.D., M.R.C.S., &c., aged 2 years and 7 months.

JUNOR.—On the 21st inst., John Balfour Junor, L.R.C.S.Ed., of Peebles.

Medical Diary of the Week.

Monday, Aug. 31.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 1.

ROYAL FREE HOSPITAL.—Operations, 9 A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Wednesday, Sept. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Sept. 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 5.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

STREET-WATERING.

AS not only the comfort, but to a certain extent the health of Londoners is affected by the present inefficient mode of watering the streets, we recur to a subject to which reference was made some time since in noticing one of Dr. Whitmore's Health Reports of Marylebone, in which it was stated that the addition of deliquescent salts to the water thrown upon the streets bid fair to keep the dust more quiescent than hitherto has appeared to be possible. A paper was read on this subject before the British Association at Norwich, in the Mechanical Section, by Mr. Cooper, in which it was stated that in Baker-street, Portman-square, the inhabitants had given their unqualified testimony to the fact that the use of deliquescent salts (chlorides of sodium and calcium chiefly), in the proportion of about half a pound of these to a gallon of water, had prevented all annoyance from the dust. It seems, too, that it has obviated the necessity of Sunday labour, improved the condition of the roads, hardening them and concreting them in such a manner that, when dry, very little, if any, dust is disturbed by the ordinary traffic; and, what is of prime consideration, the new plan can effect, it is asserted, a great saving in water. About one-sixth of the water-supply usually goes for street-watering, and by the use of deliquescent salts a saving of 75 per cent. is effected, and this at a hot season of the year when every gallon is precious. We shall hope that the new mode of street-watering will be more extensively tested, and that its asserted advantages, if they turn out to be real, may be secured to us as quickly as possible.

Lara.—A L.R.C.S. and L.R.C.P.E. is qualified to hold a union appointment.

THE MEDICAL MILLENNIUM.
To the Editor of THE LANCET.

SIR,—It has been prophesied that at no very remote period "medical men will be able to stay the ravages of tubercle, blot out fevers and inflammations, melt down morbid growths, cure cancers, and stamp out small-pox."

I have been during the greater part of a long life engaged in investigating the origin, progress, and treatment of tumours, polypi, and cancers, and have arrived at the conclusion that cancers are incurable diseases. I was rejoiced beyond expression when it was announced that morbid growths are soon to be melted down and cancers cured.

Before I go hence and be no more, I should feel infinitely indebted to any of the prophets who have foretold this millennium if they would give me a hint how a cancer of the uterus is to be cured. I am certain it cannot be done by arsenic, red-hot irons, or potasse fusa, which has often been used, and invariably failed. If I learn that there is a probability of cancer being cured, I shall die in comfort, and only regret that the secret by which this miracle is to be accomplished had not been made known to me forty years earlier.

Your obedient servant,
SENEX.

London, August 22nd, 1868.

ST. LEONARD'S HOSPITAL, SUDBURY.

At the annual meeting of the subscribers held on Tuesday, a long discussion took place on the amendment of Dr. Williams to Bye-laws 3 and 4, which run thus:—

"3. That each medical officer shall take a week in succession for the purpose of receiving patients. All cases of accident shall be admitted and retained by the medical officer of the week.

"4. That on the admission of a patient, such patient shall be allotted to the medical attendant who at the time of such admission shall have the smallest number of patients in the hospital. In case the medical officers shall each retain the same number of patients, the patient admitted shall be allotted to the medical officer of the week."

The question at issue was whether a patient should or should not be allowed to select his own medical attendant, against the plea that jealousies would be engendered amongst the medical officers if any one of them had more patients than another. Surely in every hospital the first duty of the Committee is to study the feelings and welfare of the patients, for whose special benefit, indeed, the institution was ostensibly founded. Dr. Williams's amendment was as follows:—

"That all patients admitted during the week be allotted to the medical officer of the week, and that such medical officer shall continue his attendance upon them as long as they remain in the hospital."

Certainly nothing can be fairer to all parties, and more consistent with common sense and with a system that is found to work well in all the institutions similar to St. Leonard's Hospital. The Governors, however, did not agree with the amendment, and it was rejected by a large majority—the numbers in favour of it being 8; against, 35; proxies, 32. Ladies present voted. Dr. Williams, amidst a general expression of regret, tendered his resignation as medical officer, and strenuously demanded as a subscriber that the fact should be recorded in the minutes. The Chairman, however, at the close of the meeting declined to receive the resignation. Dr. Williams has since addressed a letter to the Chairman, and has published it in the *Suffolk and Essex Free Press*. Speaking of tendering his resignation, he says:—

"I do so with considerable regret, as I have taken a deep interest in the welfare of the institution from its commencement; but as my opinion, *unanimously* confirmed by the twelve letters I read to you yesterday from gentlemen practically connected with hospitals, and the opinion of the Editor of THE LANCET, failed to convince the meeting of the impracticability of the Bye-laws 3 and 4, I feel that, in justice to myself and my professional credit, I must not hold an appointment subject to such rules. I must remind you that, from the opening of the hospital up to the present time, I have been acting under protest, and at the solicitation of some of the members of the Managing Committee; but now that the protested point is confirmed, you must consider my resignation to date from yesterday, and you will please to make arrangements for the medical care of the patients I have hitherto attended in the hospital."

We do not see what other course was open to Dr. Williams which would be consistent or honourable.

Enquirer is informed that the hair-wash suggested in the *Spectator*, "a weak solution of acetate of iron in water with a little glycerine," is not likely to have any injurious influence upon the health.

Mr. Taylor's letter arrived too late for insertion this week.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.
To the Editor of THE LANCET.

SIR,—In your impression of August 15th, I read a letter from Mr. King, of Chepstow, with reference to the Gresham Insurance Company. It may not be amiss at the present time to relate a similar attempt made upon myself a few years ago.

I quote from memory. I received a form to fill up, involving a medical opinion upon the life of one of my patients. Seeing no mention of a fee, I wrote to say, if they required my opinion, my fee was a guinea. I received an answer that I was only consulted as a private friend, and not in my medical capacity. I replied that certain questions in the form they had sent to me involved a medical opinion; but as I was not applied to professionally, Mr. ——— had many friends who were as capable as myself of giving them the information they required. The Office replied that they were sorry to find that I held the opinions I did with reference to Life Assurance Companies; but finding I did so, they had no alternative but to request my patient to employ some other medical man. I responded that I was sorry the Gresham Company held the opinions they did with reference to medicals; but finding they did so, I had no alternative but to request my patient to insure in another Office,—which he has done, together with his son. To my professional brother I would say, "Do thou likewise."—Yours faithfully,

Shrewsbury, Aug. 19th, 1868. SAM. WOOD, F.R.C.S.

P.S.—May not a fee under such circumstances be recovered in the County Court?

Milarow.—There is not the slightest blame to be attributed to Dr. Chadwick, who attended promptly. The death of the patient was due to the improper position in which she was placed immediately after labour. She fainted, and instead of being placed by the midwife in the recumbent posture, she was supported upright in a kneeling position till long after she was dead.

Dr. H. Gray.—He will be qualified, after having given proof of his capacity, to hold the appointment.

M. A. C.—The request shall be complied with.

D. D. V. will have to attend hospital practice for three winter and two summer sessions.

THE HORAMAGRAPH.
To the Editor of THE LANCET.

SIR,—Will you allow me, through the medium of your columns, to inform those gentlemen I met at Oxford and others who are desirous to obtain an instrument similar to the one I exhibited for "investigating the field of vision," that Mr. Collins, of Great Titchfield-street, Oxford-street, has been here to see the instrument and have it explained. He has by this time, or soon will have, some ready for sale.

I am, Sir, yours, &c.,
MATTHEW A. ADAMS.

Maidstone, August 28th, 1868.

ASSISTANTS AND THE PHARMACY ACT.

As a great many communications have reached us, seeking information in regard to the clauses of the new Pharmacy Act which relate to the registration especially of assistants, we may once for all state that, as we read the new Act, no person can be registered as a chemist and druggist without passing an examination, unless he was in business on his own account as such prior to the passing of the Act. Those who were assistants to chemists and druggists before that time may be registered on passing a modified examination. Where medical practitioners have kept open shops, they have been in the eye of the law, we imagine, chemists and druggists, and presume that their assistants are in the same position as were those of chemists and druggists, properly so called, and such assistants will have to undergo an examination. The case will be altered under the new order of things as far as the profession is concerned, because no one can now be registered under the Medical Act and the Pharmacy Act also. It is specially directed that this distinction shall be made. Those of our readers who wish to register, and are in doubt as to what steps to take, should apply at the Pharmaceutical Society for the schedules which are required to be filled up on applying to be registered.

Dr. B. Gill will find the information he requires in Murray's Handbook for the Holy Land.

DR. LYON PLAYFAIR.

To the Editor of THE LANCET.

SIR,—You have so consistently supported the claims of Dr. Lyon Playfair as a suitable member for the Universities of St. Andrews and Edinburgh, that I trust you will allow me a short space to contradict certain misrepresentations with regard to him, which are very assiduously propagated by his opponents.

Firstly, I have heard from more than one source that Dr. Playfair has attempted to deceive the constituency by claiming to be a medical man, when, in fact, he is not so. This is a very grave charge; but fortunately it is one without a shadow of foundation. No such claim has ever been advanced on his behalf. What his friends have claimed for him is, that his course of work and education entitle him to the support of medical men, and well qualify him to represent their interests in Parliament. If a complete medical curriculum extending over four years, a life-time spent in the study of the very questions on which our profession most requires representation, and a present position as a member of the medical faculty of the University of Edinburgh, and as a teacher of medical men, are not in themselves sufficient qualifications for the purpose, I should be at a loss to know where to look for them.

The next question on which there appears to be considerable doubt among my fellow-graduates is with regard to Dr. Playfair's politics. Not long ago it was persistently rumoured that he appeared altogether under false pretences; that, in fact, he was a strong Tory, professing to be a Liberal. This fiction having served its turn, I now hear on every side that he is an extreme Radical, whose only object is to revolutionise existing institutions. I think no one can have read his address without seeing how inconsistent with the facts are both these statements. As a moderate Liberal, without extreme views of any sort, Dr. Lyon Playfair might well have omitted any allusion to the Irish Church question, and thus possibly have secured the support of a few graduates who have strong opinions on that subject. But as this is the great test question of the day, it seemed to him fairer to express his views with regard to it—views which are also those of many Conservatives. In the original circular to the graduates, signed by leading members of our profession, the passage occurs: "We think it right to state that Dr. Lyon Playfair is a supporter of Liberal principles." In the corresponding circular of the friends of Mr. Swinton, his politics were carefully concealed. The most politic course is the true one.

Permit me to say, Sir, a word in conclusion with regard to the late appearance of my friend Dr. Richardson as a candidate. That his talents and position would make him an admirable representative of medical interests in Parliament, no one is more ready to admit than Dr. Playfair himself, who at one time was ready to withdraw in his favour, provided he had determined to contest the seat with fair prospect of success. Dr. Richardson then expressed himself as having no fixed intentions. Months elapsed without any sign on his part, and, after an active canvass, Dr. Playfair secured for himself a very large and daily increasing body of supporters. Surely it cannot reasonably be expected that he will now withdraw from a contest in which he is far ahead of every other candidate. I hope and believe that Dr. Richardson's candidature cannot now influence Dr. Playfair's prospects one way or another. The only effect it could have is to give the legal candidate hopes of success, and to put Dr. Richardson into the unenviable position of aiding one lawyer the more to mount on his back into the House of Commons.

I am, Sir, your obedient servant,

August, 1868. M.D., A MEMBER OF THE LONDON COMMITTEE.

J. W.—The degree of Ph.D. is to be obtained at several British and foreign Universities. It is often honorary, but the rules for granting it vary at the different institutions.

Mr. J. J. Brigham.—The registrar can insist upon the death being registered by a person who was present at the time of the disease.

Dr. T. Joyce.—We believe it has been carried out at Croydon, Surrey.

Mr. Jos. Clarke Johnson.—The papers have been destroyed.

A CALL FOR HELP.

To the Editor of THE LANCET.

SIR,—The appeal on behalf of Mrs. Rann and her family, widow and children of the late Mr. George Rann, Surgeon, of Dale End, in this town, made in THE LANCET of May last, has been responded to by subscriptions from yourself, Dr. Bell Fletcher, Dr. Russell, Dr. Birt Davies, and other leading members of the medical profession in Birmingham and elsewhere. But they at present fall very short of the sum needed to place Mrs. Rann in a position to earn a livelihood for herself and family. As this is a case of great urgency, satisfactorily vouched for as deserving help, may I be allowed cordially again to commend it to the notice of the wealthy and benevolent.

Subscriptions will be received by any of the following gentlemen:—Dr. Bell Fletcher, Waterloo-street; Dr. Russell, Newhall-street; Mr. Sampson Gamgee, Broad-street; Mr. Furneaux Jordan, Colmore-row; Mr. T. Swain, Newhall-street; and Messrs. Banks and Richards, High-street, who kindly act as Treasurers.

Yours obediently,

Birmingham, August, 1868. A MEMBER OF THE PROFESSION.

THE COBRA POISON.

Dr. Marchwell (Tobago) writes us in regard to the prevention of ill-effects from snake-bite:—"An intelligent farmer, living near the mountains, had a venomous snake brought to him. He had often heard that the Indians when travelling suspended round their legs several teeth of an alligator, to which they said the snake has a repugnance, and refuses to bite. To test the truth of this assertion, he threw a fowl towards the snake; it was bitten and died. He took another, and suspended round it an alligator's tooth; the snake refused to strike. The tooth was then taken off, and when again exposed to the reptile, the bird was struck and killed." Our correspondent thinks that, as the alligator's tooth becomes electric when rubbed, "galvanic dies or medals might be tried" as preventives of snake-bite.

Marie J. A. (Edinburgh) will oblige us by forwarding some of the "paper" in question.

THE MEDICAL CLUB.

To the Editor of THE LANCET.

SIR,—As an original member of the Medical Club, I, like your other correspondents, have received a circular from the Committee, asking for an increase of subscription at the end of the present year.

I joined the Club, and induced as many of my friends to do so as possible, on the understanding that we were to be kept free from all liability for the debts incurred in the carrying out of the Club. The Committee have taken every possible precaution to ensure that provision being legally complied with, and like sensible men of business, not wishing to involve themselves in a liability of which the members cannot be called upon to bear a part, and finding the subscription of one guinea to be inadequate to meet the future expenses of the Club, they have asked for the increase in question.

No doubt many members, like myself, have never visited the Club; still it has been in existence for our convenience for two years, had we felt disposed to make use of it. I consider our best thanks are due to the Committee for the time and trouble they have devoted to the cause, and I hope at the ensuing general meeting, which I see is to be held shortly, a satisfactory resolution will be arrived at, and thereby ensure the harmony and future prosperity of the Club.

Your obedient servant,

August 24th, 1868. AN ORIGINAL MEMBER.

To the Editor of THE LANCET.

SIR,—I quite agree with your correspondent, "A Country Member," that the proposal to *treble* the subscriptions of the original members is not only unfair, but a direct breach of faith, and a persistence in this course will assuredly bring about a speedy collapse of an institution otherwise destined to be of incalculable benefit to the profession. The great bulk of the country members will probably seldom or never see the Club House, but, like myself, will cheerfully pay the subscription originally agreed upon to promote so good an object. I trust, however, the country members will rise as one man to resist this attempt to treble the annual subscription.

If the Committee has gone to expenses it was not warranted in doing, or if at any time any necessary improvement is called for, I would suggest a *pro rata* contribution to wipe off the debt, rather than break faith with the original members as to the annual subscription. There may be some difficulty in ascertaining the minds of the members on this point, it is true; but, under any circumstances, it is better (if the annual income is insufficient for ordinary expenses) to induce the profession to join the Club rather than seriously to curtail the present number of members by such an unexpected call upon their purse.

Yours obediently,

August 18th, 1868. FAIRPLAY.

A Country Subscriber may turn to THE LANCET of December 7 and 14, 1867, pp. 727 and 758, for information on the subject to which he refers.

Mr. M. A. Adams.—We shall be glad to receive the illustrated account of our correspondent's new instrument, for insertion as soon as space will permit.

Tyneside will have to pass an examination before he can register.

CARBOLIC ACID IN THE TREATMENT OF WARTS, PITYRIASIS VERSICOLOR, AND FAVUS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me a small portion of space in your next impression to furnish your correspondent, Mr. Webb, and through him the numerous readers of your journal, with the information he is unable, from want of experience in the remedy, to supply them with in his letter addressed to you in the last number of THE LANCET on the employment of carbolic acid in the treatment of warts in man?

Some months since I treated with a strong spirituous solution of the acid a considerable crop of these growths on the head of a patient of mine with the most marked success. I have likewise found it eminently curative in the treatment of favus, pityriasis versicolor, and chronic vomiting, in which the presence of sarcinæ was detected, and in several other diseases having a cryptogamic origin.

During my sojourn in Paris in the year 1865, carbolic, or, as it was then named, phenic acid, was extensively employed by several of the most eminent physicians in that city in the form of inhalation in the treatment of phthisis and chronic bronchitis, under the belief that the above diseases, if not caused, were certainly aggravated by the presence of one or other of the many parasites to which the human body is liable, as would appear from the recent investigations of the many able men who have directed their attention to the parasitic origin of disease.

From the experience I have had with carbolic acid as a remedial agent, I am inclined to estimate it as holding a very high position in our materia medica.

Yours faithfully,

Liverpool, August 17th, 1868. P. W. H. JONES, M.D.

A CAUTION.

To the Editor of THE LANCET.

SIR,—Will you be good enough to insert the following in the next number of your journal.

A female, of florid complexion, corpulent, about forty years old, and five feet five inches in height, without upper canine teeth, been capped many times on back and abdomen, of plausible address, dark eyes and hair, and giving the name of W——, widow of a late colonel in the British army, also professing to be highly connected by birth, and on intimate terms with leading medical men, and engaged by Miss B. Coutts on objects of charity, is attempting to impose on the profession and the public.—Yours, &c.

August, 1868. A VICTIM.

A FOUR-LEGGED CHILD.

THE following is the description given by Professors Jones and Paul Eve, of the University of Nashville, of the case of a monster recently born to a Mr. and Mrs. Corban, of Tennessee:—

"The infant, J. Myrtle Carban, has four legs and two distinct external female organs of generation, with two external openings of the urethra and two external openings of the double rectum. The external genito-urinary organs are as distinct as if they belonged to two separate human beings. The faeces and urine are passed (most generally simultaneously, particularly the urine) from both external urinary and intestinal openings, situated respectively between the left and right pairs of legs. The head and trunk are those of a living, well-developed, healthy, active infant of about five weeks; whilst the lower portion of the body is divided into the members of two distinct individuals, near the junction of the spinal column with the os sacrum. As far as our examination could be prosecuted in the living child, we are led to the belief that the lower portion of the spinal column is divided or cleft, and that there are two pelvic arches supporting the four limbs, which are situated upon the same plane. Photographs of this infant have been made by the advice and under the supervision of one of our number. The reality in this case surpasses expectation, and we are of the opinion that this interesting living monstrosity exceeds in its curious manifestation of the powers of nature in abnormal productions, the celebrated 'Siamese Twins.'"

THE ABYSSINIAN MEDICAL PROMOTIONS.

To the Editor of THE LANCET.

SIR,—Will you allow me to make a few remarks in your journal on the late medical promotions for the Abyssinian expedition?

I do not desire to detract aught from the merits of the favoured few, but only to point out what appear to me to be anomalies in the promotions.

The rank of surgeon-major is one which is usually only attainable after twenty years' full-pay service. To this rank I find three surgeons have been promoted, *in eased honoris*, for "distinguished services" in Abyssinia. The senior of these gentlemen entered the service in December, 1849, and therefore without any particular service he would have attained his surgeon-major's rank in a little more than *four months*. The other two, however, wanted, the one five years, and the other six years and four months, to attain that rank in the ordinary course of things. It is therefore palpable either that the "distinguished services" of the latter gentlemen have been transcendently greater than those of their senior officer, or that their reward has been altogether out of proportion to the meed granted to the other.

But I would further observe that the value of these gentlemen's services in Abyssinia must have been peculiarly great to justify their being placed over the heads of so many their seniors. Two of these gentlemen, if I may judge from Hart's Army List, have not seen active service before, and yet they have been promoted over the heads of gentlemen who have grown grey campaigning, some of whom have earned the V.C., and some have probably seen as much active service as the distinguished hero of Magdala himself.

In a strictly military point of view, the Abyssinian campaign must be regarded as simply a monster flying column. It must yield in general importance and military strategy to Sir Hope Grant's *coup de main* in China. Yet both were campaigns of the same stamp. In both the medical service in the field was necessarily small. The sick and wounded, if any, had to be sent to the field hospitals, and thence to the hospital ships, where the proper surgery &c. of the campaign fell to the lot of the medical officers in charge of those floating hospitals. Yet, Sir, has any mention been made of these gentlemen, either by their own chief, Dr. Currie, or the Lord of Magdala in his despatches? None, and the natural conclusion is, that although there may be some reward in store for the *marching* medical officer, there is none for the *working* one. This is one of the evils of our present system, which it is expected that a unified system will rectify.

Finally, I would ask is there no way of rewarding medical officers for "distinguished services," excepting at the cost of their seniors, who have claims for "distinguished services" in the Crimea, China, India, New Zealand, and everywhere excepting Abyssinia? I think there is, and further believe that it is the duty of our medical authorities to try to protect the seniors of the department, who have already done good service, from being unjustly superseded by youngsters who have never shared in any military campaign or operation before the formation of the Magdala flying column.

I am, Sir, yours, &c.,

August 18th, 1868. NESTOR.

*** We concur in the opinion that it would be better if some other way could be devised of rewarding medical officers—one which should not, for example, promote a man at the expense of his brethren. The only plan by which this could be effected would be by instituting a special list for those officers who had received promotion as the reward of some special or field service. —ED. L.

MEDICAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—In your impression of the 22nd instant you completely reverse your verdict of the previous week in the matter of professional etiquette between myself and Dr. Alexander, and warrant the proceeding by stating that Dr. Alexander has assured you that the "representation" I made to you was "*inaccurate*." Now, Sir, I know it is said that one story remains good only till another is told; but I am at a loss to understand by what process you have arrived at the *accuracy* of my opponent's statement over my own. Will you permit me to restate my complaint for *public* perusal, and to invite Dr. Alexander's *public* reply? My truthfulness has been impeached in your columns, and I must beg through the same medium to be allowed this letter of defence. With the subjoined facts on my side, I do not fear the judgment of my professional brethren.

On the 6th instant I was called to visit James N—— (who had been under my care ten days or a fortnight previously), and prescribed what I considered to be the proper remedy for his ailment. In the evening of the same day the father of the young man came to my surgery with a note from Dr. Alexander, advising different treatment, though admitting at the same time "the patient had improved since my visit in the morning, and would do well."

Now, Sir, in the first place, I deny the "urgency" of Dr. Alexander's interposition; and secondly, I have to complain of the most unjustifiable breach of etiquette on his part in visiting and prescribing for a patient of mine in my absence, and entirely without my knowledge. I may state that my residence is within a few hundred yards of the patient's house. This is a plain and truthful statement of the case. Let Dr. Alexander controvert it if he can.

I am, Sir, your obedient servant,

Luddenden, August 25th, 1868. THOMAS CROWTHER, M.D.

Ignorance.—The Norwegian cooking-houses may be obtained from the patentee, Mr. Sörensen, whose address, we believe, is Duke-street, Manchester-square.

Student.—Army Medical Department, Whitehall.

Anxious Inquirer should put the question to his medical adviser.

THE CLIMATE OF INDIA.

To the Editor of THE LANCET.

SIR,—Will any of your correspondents who have lived in India kindly give me an account of the climate of those parts where they have resided—the most healthy and the most unhealthy for Europeans, especially for children. My object is to advise a patient, who has an appointment, about taking out his wife and child, aged eleven years. Yours, &c.,

August, 1868. W. A. B.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Struthers, Aberdeen; Mr. Bryant; Dr. J. Hughlings Jackson; Dr. Ogle; Dr. Sansom; Mr. Maunder; Dr. Thudichum; Dr. Cruse, Dublin; Mr. Wood, Liverpool; Dr. Day, St. Andrews; Mr. Wales; Mr. Mingaye; Mr. Nicol; Mr. Holmes; Mr. Middleton, Salisbury; Dr. Balfour, Edinburgh; Dr. Wallace, Liverpool; Mr. Cameron; Mr. Daniel; Dr. Crowther, Luddenden; Mr. Weldon; Mr. Gaye; Mr. Milligan; Mr. Adams, Maidstone; Dr. Spencer Thomson, Torquay; Dr. Muspratt, Liverpool; Dr. Macdonald, Edinburgh; Dr. Bell; Mr. Muggeridge; Mr. Boden; Dr. Pelechin, St. Petersburg; Mr. Clarke; Dr. Owens, Maidstone; Mr. H. S. Taylor, Guildford; Mr. Moir, Glasgow; Mr. Butterfield; Dr. Reed; Mr. Middlewood, Salisbury; Dr. Evans, Portsmouth; Mr. Graham; Mr. F. Morgan, Culmstock; Mr. Smith, Redditch; Mr. Bradley; Dr. Merry, Hemel Hempstead; Mr. W. Adams, St. Clements; Dr. Mackinder; Mr. Glover; Mr. Bingham, Derby; Dr. Tannahill, Glasgow; Dr. Cresswell, Dowlais; Mr. Nowell; Dr. Lloyd; Mr. Williamson, Greenock; Mr. Kirke; Mr. Blackburn; Mr. Siccama; Dr. Whidborne; Dr. Jones, Mr. Cheatle; Mr. Bailey; Mr. Duncan; Mr. Robins; Dr. Gill; Mr. Wilson; Dr. Scott; Mr. Alexander; Mr. Fowler; Mr. Richardson; Dr. Burman; Mr. Borlase Childs; Mr. Callender; Mr. Gillis; Mr. Ollard; Mr. Brown; Mr. Laurence; Mr. Hennessy; Mr. Scowcroft; Mr. Jones; Dr. Crichton, Liverpool; Mr. Roberts; Mr. Lupton, Galway; Mr. Charley; Mr. King, Uppingham; Mr. Rickards; Mr. Lewis; Mr. Lamond, Glasgow; Dr. Cresswell, Oxford; Mr. Wood, Shrewsbury; Mr. Burroughby, Mayfield; Mr. Gray, Selby; Mr. Munro; Mr. Beanland; Mr. Craven, Hull; Dr. Fenn; Dr. Mackaye; Mr. Funnell; Mr. Deakin; Mr. Haywood; Mr. Phillipson; Mr. Ryley; Mr. Johnson, Bournemouth; Mr. Browne; Dr. Evans, Carnarvon; Dr. Redwood, Rumney; Dr. Edwards; Mr. Hodgson; Mr. Richards; Mr. Green; Mr. Hall, Delton; Mr. Sandford; Mr. Branson; Mr. Constable; Dr. Joyce; Mr. Laird, Bridgend; Dr. Holmes, Chicago; Mr. Trevelyan; Dr. Pullin, Sidmouth; The Registrar of the General Medical Council; Another Country Member of the Medical Club; N. A. R.; Lara; Enquirer; Tyneside; Q., Lewes; A. B.; D. D. V.; J. B.; Anxious Inquirer; Omicron; Ignoramus; Senex; An Original Member; S. E.; &c. &c.

THE *Lincolnshire Chronicle and Times*, the *Natal Mercury*, the *Midland Counties Herald*, the *Suffolk Free Press*, the *Western Daily Press*, the *Gateshead Observer*, the *Brighton Gazette*, the *Japan Times*, the *Harrogate Herald*, the *West Surrey Times*, the *Barnsley Chronicle*, the *Lincoln Gazette*, the *Bayswater Chronicle*, and the *Bucks Herald* have been received.

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For Notice of GREEK WINES, &c., see *Edinburgh Review* for July, 1867.

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Hock and Moselle ... ... 24s., 30s., 36s., and 42s.	"
Champagne ... ... 36s., 42s., 60s., and 66s.	"
Sherry ... ... 24s., 30s., 36s., and 42s.	"
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